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# THE JOURNAL

OF



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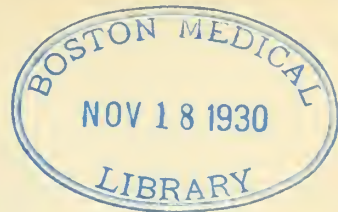
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# THE JOURNAL

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### \*STERILITY IN THE MALE

By MORRIS B. SANDERS, M. D., Boston, Mass.

The subject of "Sterility in the Male" is a large one. To try to cover it in twenty minutes and leave anything but an impression of confusion is difficult. Accordingly, it will be my endeavor in this paper to develop the subject from the viewpoint of the practitioner confronted by a childless couple. What should he do? Should he examine them or send them at once to the specialist? Are there any simple methods of examination by which a departure from normal fertility in the male may be recognized? What are the criteria of normal fertility? There are such examinations and I shall attempt to describe them, and in addition discuss the conditions giving rise to changes in fertility, the treatment of lowered fertility and its prevention.

The general subject of breeding has been given far more study in the farmyard than in the doctor's office or laboratory, chiefly, sad to say, from an economic viewpoint. A stallion or bull who is not highly fertile becomes a liability rather than an asset. Hence

breeders have been keen to evaluate the fertility of the male at any given time and have established methods of determining these pertinent facts. It is well known to breeders that in a large group of bulls there will be but few which are wholly sterile—these are quickly eliminated from the breeding farms. There will be some who succeed the first time at practically every service, and there will be a third class who may have to serve a cow two or more times before conception takes place.

Among human males the same situation arises. There will be a very small number of men who are wholly sterile. There will be the group who cause frequent pregnancies with normally fertile women, and there will also be a large group of individuals who are not sterile, and yet with normally fertile women pregnancy takes place only after much conditioning or clearing up of some local process. This last class is the one which is called a case of relative fertility.

Have we any way of estimating the

\*Read before the Annual Meeting of the Maine Medical Association.



percentage of full fertility of any given individual? We believe that we have such a test in the careful counting of the number of spermatozoa per cubic centimeter in a specimen of semen. As no real opinion of a man's fertility can be given unless the semen is examined, we feel that no real estimate of the percentage of normal fertility can be decided upon without knowing the exact spermatozoa count.

Other methods of estimating fertility previously devised have been the ordinary examination of the semen and estimating the number of spermatozoa per high power field, Huhner's post-coital examination and the measurement of head lengths of spermatozoa in man by Moench and in bulls by Williams. The first of these methods is not accurate and the second does not give us all the information we desire. The last, while based on sound principle, is cumbersome and time-consuming, and, in our experience, correlates fairly accurately with the far simpler count of the spermatozoa.

In 1891, Lode in a thesis made extended observations on spermatozoa counts in a dog before and after the removal of one testis, and on four men, one of whom had several counts made at varying intervals. Benedict, in 1910, reported a previous examination of a single case in a man in 1902 and added another. He finished his article by the statement: "Enumeration of spermatozoa has seldom been practiced. How useful either as an index of sexual or general health it will be, is not yet known."

Our technique is simple. A specimen of semen, a white blood cell counting pipette, a solution of 5% sodium bicarbonate and 1% formalin, a count-

ing chamber and microscope are all that are needed. The sodium bicarbonate serves as a diluent to dissolve small amounts of mucus; the 1% formalin to stop the activity of the spermatozoa. The semen is drawn up to the 0.5 mark in the pipette, then diluted with the bicarbonate-formalin solution to the 11 mark. After being thoroughly mixed, a drop is placed on the counting chamber and the spermatozoa counted as in doing a white cell count. After determining the number per square millimeter, the following formula is used: Number in the millimeter square  $\times 10$  (depth),  $\times 20$  (dilution), equals number per cubic millimeter,  $\times 1000$  equals the number per cubic centimeter. If there are a large number of spermatozoa, we usually count the number in the four large corner squares and multiply by four before using the above formula.

We have now made spermatozoa counts on some two hundred and ninety-five different individuals. Among these individuals are included abnormal as well as normal men. When a curve is plotted, based on the number of men having a given spermatozoa count, it is found that the largest group is that which has a count of around 100,000,000 per cubic centimeter. These figures, of course, vary tremendously—from zero to as high as 300,000,000 per cubic centimeter. In this group of two hundred and ninety-five men who have been examined because of being one of the partners of a sterile marriage, there were sixteen who were wholly sterile and seven who had counts over 200,000,000 per cubic centimeter.

In addition to estimating the percentage of normal fertility, the spermatozoa count is of value in two other ways. If treatment is necessary in the man be-



cause of lowered fertility, the original count serves as a standard with which later counts may be compared to gauge the effect of treatment. The spermatozoa count also serves to make more uniform the findings of different investigators. We have seen quite a number of patients who have been examined by well-trained physicians who have pronounced the individual to be of normal fertility, and yet the simple count has at once shown us that while the patient did have spermatozoa and those present may have shown good motility, that the number per cubic centimeter has been so small that we can say, almost without hesitancy, that conception is practically impossible until improvement takes place.

Making such a count of the spermatozoa does not mean that any other details of the thorough examination of the semen can be dispensed with.

During the past three or four years we have changed the usual method of bringing in a specimen of semen to the office. The manufacture of condoms requires a chemical and drying powder; the former affects the vitality of the spermatozoa and the latter causes confusion when examining the cellular content of the semen. We keep small 1-2 ounce bottles which have been sterilized and properly corked. A bottle is given to the patient with the instruction to withdraw just before ejaculation and collect the semen in the bottle. It is then corked and kept at body temperature (usually in the axilla) until the time of examination, which should be less than two hours later if possible.

In the examination of a specimen of semen, we make note of the amount, the time elapsed since ejaculation, and the presence or absence of mucus and pus.

In the microscopical examination, the presence or absence of leucocytes and bacteria is noted. The percentage of spermatozoa alive when first examined is determined and then the percentage alive after fifteen minutes' exposure to room temperature. The motility and the morphology of the spermatozoa are carefully studied. Any clumping of spermatozoa is noted, a determination of the pHion concentration is made, and finally a count of the number per cubic centimeter is done.

It may be stated parenthetically at this point, that it only takes such an examination of the semen to correct quickly in an individual case two of the current erroneous opinions which are so widespread. One is the feeling, not only felt by the individual, but often concurred in by his physician, that once normally fertile, always normally fertile. The other is, if the patient feels well, has never had gonorrhea, and his sexual life is normal, that he must be normally fertile. While fertility and potency usually act in unison in a normal individual, they may exist independently of one another.

Granted that a patient's fertility is lowered, what are the factors which may bring about such a reduction?

Locally, congestion or inflammations of the prostate and seminal vesicles of varying degrees constitute the largest number of cases of reduced fertility. As the prostate and seminal vesicles supply the bulk of the fluid portion of the semen, it is highly essential that this fluid should be of normal character or the vitality of the spermatozoa will be seriously impaired.

It was formerly generally believed that prostatic and vesicular inflammations arose only following an attack of

gonorrhea. Now that rectal examinations are more common in a routine physical examination, it is frequently being found that mild degrees of inflammation of either gland, especially the prostate, of a non-venereal origin exist, resulting from foci of infection elsewhere in the body, especially the teeth and tonsils. The diseased vesicle produces increased amounts of mucus in addition to pus, and this mucus alone will often lower fertility by acting as a mechanical barrier to the progress of the spermatozoa. When observed under the microscope the spermatozoa will swim headlong into some mucus and become caught there as effectively as a fly on fly paper.

Even in cases in which gonorrhea is admitted and a chronic prostatitis is found, it is of little use to spend much time hunting for the gonococcus. Its role has been to cause the original inflammation of the prostate, and only in the rarest case can the gonococcus be found after two years from the onset of the disease. Its place is taken by the secondary invader, usually a staphylococcus or bacillus coli.

Another local cause for lowered fertility is the presence of a definite varicocele. When one considers the large energy requirements of such a specialized organ as the testis, which is normally producing millions of spermatozoa daily, any interference of blood supply, as in a varicocele, is certain to show its effect on the function of the testis.

The size and consistency of the testes play their role in lowered fertility. For over a year now we have been making measurements of the length and transverse diameter of the testes in order to estimate their volume. We have found

that, in the main, the volume of the testes is fairly well correlated with the spermatozoa count. Some testes have been small since pre-adolescent days, but the chief cause of acquired atrophic testes is mumps with an accompanying orchitis, rarely occurring before the age of puberty.

Constitutional causes may and do play an important part in the lowering of fertility. In the present day city life, with its severe competition and the necessity of living some distance from work, most men do not pay sufficient attention to their diet and exercise. Meals are hurriedly eaten, and in many instances the diet is far from being a properly balanced one—usually a lowered protein, fat and caloric intake and an increase of carbohydrate. A well-balanced diet suitable for high fertility should contain from 90 to 100 grams of protein; around 100 grams of fat and from 200 to 250 grams of carbohydrate daily, making about 2,300 to 2,500 calories, together with a liberal supply of the vitamins. Exercise does not mean fatiguing labor, but such simple expedients as consistent daily walking out of doors or working in the garden suffice. Associated with exercise there should be a definite vacation away from the patient's usual work.

If a diagnosis of lowered fertility has been made, can anything be done about it? Yes, in the majority of cases, if there is co-operation between the patient and his physician. The inflammatory conditions of the prostate, in which the vitality of the spermatozoa is lowered but the number are within normal limits, offer a favorable type for treatment with the prospect of raising fertility. Such a condition, and also inflammation of the seminal vesicles, is

best treated by weekly prostatic and vesicular massage until the condition of the gland in question is practically normal and microscopical examination of the secretion after massage shows not more than five leucocytes per high power field when the material is spread thinly as in making a smear.

Excision of a marked varicocele should tend to raise the fertility, if that is the only factor to account for small numbers of spermatozoa.

Changing the diet and arranging a schedule which will allow for the right amount of exercise and sleep will do much for the patient of reduced fertility in whom no local cause may be found.

As we have been speaking of reduced fertility rather than actual sterility, no mention need be made of cases of aspermia caused by blocking of the epididymes from old inflammation. These offer little hope of cure from a viewpoint of future pregnancies, although an unobstructed passageway from the testis may be made.

Finally, I would like to say a few words on the prevention of sterility in the male. This is best considered under the heading of "Growth and the Proper Treatment of Gonorrhea" in those cases in which it has occurred.

Proper growth during adolescence can best be controlled by the same measures just now advocated in improving adult male cases in which constitutional factors are at fault—a well-balanced diet with an adequate supply of vitamins. Parents and teachers are not as apt to crowd a boy's life with school, play and some of the fine arts as is frequently done with his sister during the same period of life, but attention to underweight and underdevelopment is

often disregarded because of the semi-disgrace of the adolescent boy in staying out of school once he has started. We should not hesitate to recommend suspending school for sufficient time to bring a boy of underweight or underdevelopment up to normal.

Of equal, if not greater, importance in the prevention of sterility and lowered fertility is the proper and thorough treatment of gonorrhea when it is first seen by the physician. Our own figures on the subject of gonorrhea, as seen in those patients presenting themselves because of a sterile marriage, have been astonishing as we have compiled them. Out of six hundred and forty-two cases of men to whom the question of having had gonorrhea had been put, one hundred and four, or 16%, admitted having had the disease. Of these one hundred four men, seventy-three, or 70%, still showed some infection in the prostate or seminal vesicles at the time of our examination. Twenty-seven of the wives of these seventy-three men (37%) showed endocervicitis or salpingitis, which play a role in lowered fertility or sterility in the woman similar to prostatitis and vesiculitis in the male. Whereas of thirty-one cases of non-venereal prostatitis (cases where there had never been gonorrhea), only seven wives (22%) showed an endocervicitis or salpingitis.

These figures seem to us to show that our methods of treating gonorrhea are most unsatisfactory if seventy per cent. of the men still harbor infection, although most of them claimed to have followed faithfully the treatment as outlined by their physicians. If one's practice is such that treating gonorrhea is not desirable, that is a decision which can only be made by the individual doc-



tor. Once having accepted a case of gonorrhea for treatment, that patient should not be discharged as cured until such time as all the criteria of the cure of gonorrhea have been made. The fact that there are so many ways of treating the disease shows at once that no one way is specific, but whatever method is used, not only should the actual urethral discharge have disappeared, but an examination of the prostate and the calibration of the urethra should have been made at a sufficient interval after the disappearance of the discharge to warrant our saying the patient is cured. Even then, to be doubly certain, an examination of the patient six months and one year later would then rule out a residual infection which had been overlooked. At the present time I am just finishing treating, although still observing, a stubborn case of prostatitis whose history is as follows: Seven years ago he had his original infection. His doctor gave him some kindly sympathy, a prescription for sandalwood oil capsules and told him to return if the urethral discharge did not clear up in ten days. Two years later, the patient had another infection, at which time a stricture and prostatitis from the previous attack were found. Six months before I saw him, he had a prostatic abscess, which had to be drained, and when I saw him in the fall of 1925, he had a marked chronic prostatitis and a draining sinus in his perineum. At the present time he is almost pus free, and the sinus closed when the prostatitis had improved. This patient, unfortunately, is not a lone case with a similar story of neglect on our part.

I feel certain that could we put cases of gonorrheal urethritis with no involvement of the posterior urethra to bed,

force fluids, feed them a bland diet, elevate the testes and submit them to no irrigations, that the much-dreaded complications of prostatitis, vesiculitis, epididymitis and stricture of the urethra would be reduced to a minimum, but such a treatment would need much training of the public's and the individual's attitude toward the disease.

\* \* \* \* \*

Case (No. 5561) illustrating the need of both local and constitutional treatment. Man of 35, manager of a mill, had been married 5 years without children and had used no method of contraception. Wife normal. He had mumps at twelve with orchitis. There was no venereal history, but there had been an excess of masturbation which was difficult to overcome. The general physical examination was normal. Locally the testes were small, the right measuring 2.8 cm. by 1.3 cm.; the left 3.4 cm. by 1.8 cm. (normal from 4.0 - 4.5 cm. by 1.8 - 2.4 cm.). The prostate was not enlarged, but was definitely boggy. Its secretion showed a definite increase in the number of leucocytes with occasional clumps of pus cells. The first specimen of semen showed no mucus. The leucocytes were increased microscopically. Only about 60% of the spermatozoa were alive and only in fair motion; their vitality was poor; morphology showed an increase of small heads and swollen middle pieces. The count was 64,000,000 per cubic centimeter.

The patient was given advice as to work, recreation, diet and vacation. Eight months later a second specimen of semen showed about the same increase of leucocytes; the same percentage of spermatozoa alive and the vitality as poor as at the first examination. The



count had improved—it was now 96,000,000 per cubic centimeter. The patient was feeling much better generally; he tired far less easily. His prostate was re-examined and found to be boggy, with a marked increase of leucocytes in the secretion. He had ten treatments, consisting of massage of the prostate, after which only some 3-6 leucocytes per high power field were seen.

His wife skipped the period following the removal of precautions (we usually advise the use of a condom during treatment to prevent any possible cross infection) and a full-term normal boy born later.

Case (No. 5317) illustrating the effect of excision of a bilateral varicocele. Man of 33, banker, married 3½ years, with an essentially negative past history, except for long service in the war and returning to school without a vacation, which resulted in a severe nervous reaction. His physical examination is negative except for a bilateral varicocele, much more marked on the left side. The prostate and seminal vesicles are within normal limits. The first examination of the semen showed a large amount of ropy mucus; the percentage of spermatozoa alive only fair; their morphology and vitality poor. The count was 15,000,000 per cubic centimeter. This patient was one who could take a two months' vacation, living in the open, which he did. Five months later, although he felt far better generally, the spermatozoa count had only increased to 20,000,000. In another six months' time, the count was still only 20,000,000. Two months later the varicoceles were excised and in five months' time the count had jumped from 20,000,000 to 74,000,000 per cubic centimeter, and with marked improvement

in the vitality and morphology of the spermatozoa. Only a very slight amount of mucus was present. A month after this last examination, conception took place, with a resultant normal full-term baby boy.

It is generally believed that once conception has occurred, that the male is exonerated from blame as the cause of a miscarriage. It has been known that miscarriage occurring under three to four months may be caused by a defective egg cell. The following case (No. 5402) apparently shows that defective spermatozoa may have sufficient vitality to cause conception, but not sufficient to allow conception to proceed beyond a certain point of development: The patient was a man of 40, of sedentary habits, and no venereal history. He had been married twice. Shortly after his first marriage, his wife conceived and bore a normal child. Three to four years later there was an early miscarriage. This first marriage lasted eleven years, apparently without further conceptions. He was married a second time thirteen months previous to our first examination of him. There was a miscarriage of two months, some six months after marriage and a second miscarriage of two to three months three weeks before being seen. Curetting of the first miscarriage showed it to be a blighted ovum; of the second, only decidua was found as the miscarriage had been partially passed. His wife was reported normal. Physical examination was normal generally. Locally the right seminal vesicle was enlarged but not tender. The prostate was boggy and tender, and the secretion showed an excess of mucus and 10-15 leucocytes per high power field with no clumps. Examination of the semen showed a normal number of

spermatozoa, but there was a definite excess of mucus and leucocytes; the vitality of the spermatozoa was poor and an increased number of abnormal forms. The prostate and seminal vesicles were given a course of massage. Examination after treatment showed a reduction of mucus and leucocytes (2-4 per high power field) and the vitality and the morphology of the spermatozoa were markedly improved. Precautions were removed, and in three to four months his wife conceived and had a full-term normal child.

#### BIBLIOGRAPHY

Huhner, Max: *Sterility in the Male and Female*. Rebman Company, New York, 1913.

Moench, G. L.: *Some Phases of the Problem of Sterility*. *Medical Herald and Physiotherapist*, March, 1928.

Williams, W. W. and Savage, A.: *Note on Examination of Bulls for Genital Soundness*. *Journal Am. Vet. Med. Assn.*, Vol. LXVIII, N. S. 21, No. 4, Jan., 1926.

Williams, W. W. and Savage A.: *Observations on Seminal Micropathology of Bulls*. *Cornell Veterinarian*, October, 1925.

Lode, Alois: *Archiv. fur die Gesamte Physiol.*, Vol. XL, page 278, 1891.

Benedict, A. L.: *Enumeration of Spermatozooids*. *N. Y. Med. Journal*, Vol. XCI, page 1169, 1910.

NOTE.—The material from which this paper was compiled and the concept of fertility upon which it is based are from the work of Drs. Edward Reynolds and Donald Macomber, as well as from that of the author who is associated with them.

See also Reynolds & Macomber: *Fertility and Sterility in Human Marriages*, W. B. Saunders Co., Philadelphia, 1924.

## \*\*STERILITY IN THE FEMALE FROM THE ENDOCRINE STANDPOINT

By CHARLES H. LAWRENCE, 520 Commonwealth Ave., Boston, Mass.

It has long been recognized that patients with myxedema or acromegaly are, as a rule, sterile, and that other endocrine disturbances are associated with lowered fertility. But no accurate evaluation of the importance of abnormal endocrine function, as compared with other causes of sterility, has ever been made. Medical literature contains no adequate data from which conclusions can safely be drawn, since there exists, so far as I know, no study of a large number of cases of sterility in which both partners have been adequately studied from all points of view.

Such a study is now in progress at the Evans Memorial\*, and since this

paper is largely based upon the results thus far obtained by it, a brief description of the method employed seems necessary. Tables 1 and 2 give the details of the routine employed. In every case, both husband and wife are examined by an internist, and both undergo a series of tests sufficient to eliminate or disclose the presence of disturbed endocrine function in either. In addition, the wife is examined by a gynecologist, the husband, by a genitourinary surgeon. By such a study it is determined conclusively whether the cause of the sterility lies in one or both partners, and whether it is due to non-endocrine or endocrine causes. If the latter, such

\* From the Evans Memorial, Boston, Mass. Evans Memorial Publication No. 175-A100.

\*\*Read before the Annual Meeting of the Maine Medical Association.

further tests as may be necessary to identify the gland at fault are completed, treatment is prescribed, and the end result noted whenever possible. When the series of patients studied by this method becomes large enough to eliminate errors due to chance, it will be possible to draw from it conclusive data concerning the factors causing human sterility.

As yet, our series is far too small to furnish data for any final conclusions, comprising only sixteen cases. Since, however, the patients have been so completely studied, it seems worth while to present an analysis of the results obtained in them. Table 3 gives the results of this analysis. The percentage of patients in whom the sterility is due to endocrine malfunction is possibly slightly higher in this series than it will be in a larger one, but even so, it indicates that disordered endocrine function is an important cause of sterility in both male and female, and emphasizes the fact that major surgical operations for the relief of sterility in the female should not be advised until all the factors in both partners have been determined. Even when the examination of the wife discloses some pelvic pathology, its repair should not be undertaken until it has been determined whether or not it is the only barrier to fertility, since a major operation for its relief is justifiable only if it offers reasonable expectation of fertility. It has been, and still is, all too commonly taken for granted that any demonstrable pelvic pathology in the female is the sole cause of sterility in that mating. Our results do not bear out this conclusion, since in the series presented the sterility may be fairly charged against the husband alone in four (or 25%) of the cases,

against both partners in seven (or 43.7%), and against the wife alone in five (or 31.2%). In the cases in which the wife was solely responsible for the sterility, three (or 60%) showed, in connection with major or minor pelvic pathology, unmistakable evidence of endocrine malfunction. This figure is undoubtedly higher than it will be when the series is larger, since many of our patients were referred because their physician had suspected an endocrine disturbance, but it explains the frequency of unsatisfactory results so often following surgical treatment of the wife as the sole measure for relieving sterility in any given couple.

In what percentage of matings is endocrine malfunction solely responsible for the sterility? At present, no convincing answer to this question exists. Table 4, however, shows that in our series it was at least the major factor in thirteen individuals (or 40%) of the total examined. Of the females examined, four (or 25%) showed evidence of disturbed endocrine function. Its importance lies, therefore, not in the frequency with which it produces sterility in the female, but in the frequency with which its existence may be overlooked. To the physician not primarily interested in endocrinology, the entire subject seems highly impractical, or worse, and the methods necessary in making an accurate diagnosis appear so complicated and time-consuming that he avoids the situation as often as possible. This attitude was amply justified in the past, but its justification is rapidly waning. Every method necessary for the diagnosis of endocrine disturbance is now available to any group of men who wish to use it, at not too great a cost in time or money. A painstaking



history and physical examination will almost always raise the suspicion of endocrine disturbance if it be present. The family history is often suggestive; the past history frequently discloses periods of retarded or abnormally rapid development, mental or physical; the present condition is characteristically one of physical subefficiency and nervous instability; while the physical examination fails to elicit any organic disease to explain the patient's symptoms, and does disclose evidences of malnutrition in its widest sense. In the female, there is frequently added to this a story of delayed puberty or disturbed menstruation. Such a combination demands an examination of bodily function which serves to detect endocrine disturbance if present.

Another factor which has militated against progress in our knowledge of endocrine malfunction is the idea, still prevalent, that even if a definite diagnosis can be established, one has only his labor for his pains, since with the exception of thyroid extract, there is no satisfactory treatment for disturbed endocrine function. With the newer endocrine preparations which are rapidly becoming available, however, and a better understanding of the dosage required, this theory is rapidly becoming untenable. While the results of treatment in pituitary or ovarian failure are admittedly less satisfactory than those of hypothyroidism, they are nevertheless far better than none, and are, in many instances, brilliant.

In the treatment of sterility due to endocrine hypofunction, the results seem to me particularly satisfactory, if the treatment is applied to properly selected patients. It is of course idle to expect that anything can be accom-

plished for a woman of thirty-five whose long-standing pituitary failure has resulted in infantile pelvic organs, or that administration of the follicular hormone will overcome a hypofunction due to long-standing cystic degeneration of both ovaries. When, however, the depression of function is not due to disease of the gland itself, but results from some severe general infection, associated focal infection or general overstrain, adequate substitutive therapy is often successful.

Neither the Evans Memorial series nor any in the literature furnish adequate material for determining the percentage of cases in which endocrine treatment is successful in overcoming sterility, but our studies do offer examples of what may be accomplished. The following case reports, showing the end results of treatment, are cited as examples of what may be done:

Case I. Sterility. Couple married 3 years. Contraception 2 years. Wife normal. Husband, no organic disease. Basal metabolic rate, 27%. Bradycardia, hypotension, subnormal temperature, blood relative lymphocytosis, 11% overweight. Urine: High residual nitrogen. Diagnosis: Thyroid failure. Treatment: Thyroid Extract, gr. iii daily till B. M. R. normal, then gr. ii daily. Result: Pregnancy two months after husband's B. M. R. became normal. Pregnancy normal, normal delivery at full term, babe normal.

This case is interesting for three reasons: First, the husband considered himself in perfect health. Second, examination of a condom specimen showed normal numbers of spermatozoa, with 75% showing normal motility. The post-coital specimen, however, showed only a few spermatozoa in the cervix,



and all but a few were dead. The condition was one of low vitality of the spermatozoa. Third, the end result shows that the vitality of spermatozoa cannot always be determined from a condom specimen, and that low sperm vitality may be due to thyroid failure.

Case II. Sterility due to repeated miscarriage. Couple married 6 years. Husband normal. Wife had one baby soon after marriage. Following pregnancy, severe streptococcus throat infection. Since then three miscarriages at third month. Examination: No organic disease or pelvic pathology. B. M. R., -23%. Bradycardia, hypotension, subnormal temperature, blood relative lymphocytosis, 8% underweight. Diagnosis: Thyroid failure. Treatment: Thyroid Extract, gr. iii daily till B. M. R. normal, then gr. iiss daily. Patient now in seventh month of pregnancy, which seems perfectly normal.

The interest in this case lies in the fact that the thyroid failure did not prevent conception, but did prevent pregnancy progressing normally to full term. This and another similar case also suggest that severe acute infections may cause thyroid failure. Two other cases of repeated miscarriage in which thyrotoxicosis was found indicate that normal thyroid function is essential for female fertility.

Case III. Sterility. Married 7 years. No contraception. Husband normal. Wife never pregnant. Examination: No organic disease or pelvic pathology. Abnormally tall, 71½ inches. 20% overweight. B. M. R. +2% (unsatisfactory). Pulse rate normal. Hypotension. Blood: Relative lymphocytosis; uric acid content higher than normal. Urine normal. Fields of vision show slight temporal cutting of form

fields. X-ray of sella shows bony bridging. Diagnosis: Pituitary dysfunction. Treatment: Anterior lobe pituitary substance, gr. xxiv daily for six months. Result: Patient became pregnant after six months' treatment. Pregnancy normal, labor normal, babe normal.

Here is an example of sterility in the female successfully treated by oral administration of pituitary extract by mouth. Unlike most cases of pituitary dysfunction, there was no hypoplasia of the pelvic organs. In the majority of women with pituitary lack, the uterus is undersized, and since the sterility is not recognized till the growth period is past, there is little hope of correcting it by medication, and therefore little chance of relieving the sterility. When, however, normal pelvic organs are present, the possibility of successful treatment exists, as this case demonstrates.

Case IV. Sterility. Couple married 2 years. Contraception 6 months; no pregnancy. Husband normal. Wife has history of irregular and scanty menstruation. Examination: No organic disease or pelvic pathology. B. M. R., -9% (unsatisfactory). Pulse rate normal, marked hypotension, blood shows relative lymphocytosis, normal chemical findings. Urine normal, vital capacity lowered, alveolar CO<sub>2</sub> tension lowered. Weight normal. Diagnosis: Ovarian hypofunction. Treatment: Lutein, and Follicular Hormone hypodermically. Result: Pregnant four months after treatment begun. Pregnancy normal, delivery normal, babe normal.

This case represents lowered functional activity of the ovaries as the only demonstrable cause for the sterility, which was relieved by intensive substi-

tutive therapy. In our Evans Memorial series, and in my personal experience, primary ovarian hypofunction is not a common endocrine cause of sterility, thyroid and pituitary disturbances being by far more frequently encountered.

#### CONCLUSIONS

1. The causes of sterility can be properly evaluated only by studying both partners simultaneously, since in the majority of cases both exhibit conditions more or less hostile to fertility.
2. The results of a small series of

cases thus studied indicate that disturbed endocrine function is a causative factor in sterility in from twenty to thirty per cent. of cases, affecting both sexes equally.

3. As a corollary, surgical treatment of sterility in the female should not be undertaken until possible endocrine disturbances have been ruled out in both partners.

4. In properly selected patients, endocrine therapy gives logical expectation of success in the treatment of sterility in the female.

TABLE I

#### INSTRUCTIONS FOR PATIENTS

The investigation described in this leaflet is intended to determine, with the greatest possible accuracy, the cause of sterility. Since the correct treatment in each case depends entirely upon a proper understanding of the cause or causes present, it is obvious that a careful investigation is necessary in the beginning in order to accomplish the best result in the end.

Such investigation must always consider the husband as well as the wife, for examination shows that the male is at fault in a considerable proportion of cases, even when he appears in every way strong, healthy, and normal.

To complete the investigation takes at least one week. In many cases extra tests have to be carried out, and so a second week may be required. On the following pages is shown a detailed program of the tests.

Appointments should be made so that the investigation can start shortly after the end of a menstrual period. The couple should abstain from intercourse for a week previous to their appointment, and should have intercourse during the time of investigation only as instructed.

TABLE II

First day Sunday	Husband and wife each begin the collection of a 24-hour specimen of urine. The two specimens are to be kept separate. The first urine passed upon arising Sunday morning is thrown away; all subsequently passed Sunday and Sunday night, together with that passed upon arising Monday morning, is saved and put into clean bottles.
Second day Monday	8.00 A.M. Husband and wife report, without breakfast, bringing 24-hour specimens, to Evans Memorial, 80 East Concord St., for tests of blood, urine, and metabolism. At this time the hours of subsequent appointments are arranged. P.M. Husband reports to urologist for examination of male organs. P.M. Wife reports to gynecologist for examination of female organs.
Third day Tuesday	P.M. Wife reports to gynecologist for examination of secretions of womb.
Fourth day Wednesday	The couple have natural intercourse between 6.00 and 7.00 in the morning. 8.00 A.M. Wife reports to gynecologist for examination of male seed in womb. P.M. Wife reports to gynecologist for test of condition of tubes.
Fifth day Thursday	P.M. Husband and wife report to internist for general physical examination.

Sixth day      The couple have intercourse between 6.00 and 7.00 in the morning, using a  
Friday      condom, or so-called "safe." When the condom is taken off, a string is tied  
                 around its neck, to prevent the contents being spilled; it is then wrapped in  
                 a handkerchief. In order to keep this specimen warm during transportation,  
                 it should be carried inside the clothing next to the body.  
                 8.00 A.M. Condom specimen is brought to urologist.

Second week    If further tests prove to be necessary, appointments will be made for their  
                 performance during the second week.

TABLE III  
FINDINGS IN 16 COUPLES

<i>Female</i>	<i>Male</i>
1 Non-endocrine	Pituitary dysfunction
2 Non-endocrine	Non-endocrine
3 Non-endocrine	Thyroid failure
4 Pituitary dysfunction	Pituitary failure
5 Pituitary failure	Non-endocrine
6 Pituitary dysfunction	Non-endocrine
7 Non-endocrine	Non-endocrine
8 Pituitary failure	Non-endocrine
9 Non-endocrine	Thyroid failure
10 Non-endocrine	Non-endocrine
11 Non-endocrine	Pituitary dysfunction?
12 Non-endocrine	Pituitary dysfunction or thyroid failure
13 Non-endocrine	Thyroid failure
14 Non-endocrine	Pituitary failure?
15 Non-endocrine	Non-endocrine
16 Non-endocrine	Pituitary dysfunction

SUMMARY

Non-endocrine .....	12	Pituitary dysfunction .....	4 or 3
Pituitary dysfunction .....	2	Pituitary failure .....	2
Pituitary failure .....	2	Thyroid failure .....	3 or 4
Non-endocrine .....	7		

TABLE IV  
SUMMARY OF FINDINGS IN FEMALES WITH ENDOCRINOPATHY  
(One Endocrine Female)

<i>No.</i>	<i>Sex</i>	<i>Age</i>	<i>Married</i> <i>(contraccption)</i>	<i>Data</i>	<i>Diagnosis</i>	<i>Recommend</i>
	F	28		Polyuria Lymphocyte + Eosinophil + Wt. = -12% B.M. < -1% Sugar +50% Eyes + Sella +	Bilobar Pituitary failure	Lysis of adhesions Drain cervix Pituitary medication A & P
5			10 mos. — 0			
	M	30		—	Not End. Non-specific Prostatitis	0
	F	31		Eosinophil + B.M. = -26% Sugar -50%	Pituitary dysfunction (A- P+) Tubes + Cervix +	Anterior lobe medication Therapeutic insufflation
6			10 — 0			
	M	34		—	Tonsils + Prostate + (non-spec.)	Tonsillectomy

	F	31		Res. N <sub>2</sub> 11% Lymphocyte + Eosinophil + Wt. = +25% B.M. = -21% Sugar +50%	Bilobar Pituitary failure Tubes + Cervix +	Pituitary medication A & P Laparotomy for tubes Plastic on cervix
8			5 — 0			
	M	32		—	Inflamed seminal vesicles	

NOTE: In this and subsequent tables the + sign signifies "abnormal."

TABLE V  
SUMMARY OF FINDINGS IN MALES WITH ENDOCRINOPATHY  
*One Endocrine (Male)*

No.	Sex	Age 24	Married (contraception)	Data —	Diagnosis Tubes +	Recommend Therapeutic insufflation
1			2 — 1			
	M	30		Lymphocyte + Wt. = +24% B.M. = -21% Sugar -67% Eyes +	Pituitary dysfunction (A — P +)	Anterior lobe medication
	F	32		—	Normal	—
3			3 — 2			
	M	34		Res. N <sub>2</sub> high Lymphocyte + Wt. = +11% B.M. = -27% Pulse, B.P.T., low Sugar -0%	Thyroid failure	Thyroid medication
	F	29		—	Tonsils + Cervix + Tubal spasm	Tonsillectomy Drain cervix
9			2 — $\frac{1}{2}$			
	M	36		Oliguria Res. N <sub>2</sub> ++ Lymphocyte + B.M. < -12% Pulse, B.P.T., low Goiter	Thyroid failure Tonsils +	Tonsillectomy Thyroid medication
	F	31		—	One ovary removed Pelvic adhesions Cervix +	Operate cervix
11			7 — 0			
	M	45		Res. N <sub>2</sub> 9% Wt. = +16% B.M. = -15% Sugar -33%	? Pituitary dysfunction? Tonsils + Sinuses +	Tonsillectomy Operate sinuses



12	F	35	12 — 0	Graham + Liver func. +	Cholecystitis Liver dys- function Tubes + Cervix +	Plastic on cervix Laparotomy for tubes Duodenal lavage
	M	35		Oliguria Glycosuria B.M. < —8% Sugar —33%	Probable pituitary Possible thyroid	Try thyroid medication first
13	F	32	1 — 0	2 children by earlier mar- riage Incomplete	Cervix + Tonsils + Possible hypogonad?	Plastic on cervix Tonsillectomy Complete test
	M	34		Oliguria Res. N <sub>2</sub> 12% Lymphocyte + Wt. = +13% B.M. = —19% P.B.P.T., low Sugar normal	Thyroid failure	Thyroid medication
14	F	25	2 — $\frac{1}{4}$	—	Tubes + (after appendix)	0 See husband
	M	32		Mumps with orchitis 1 testicle (undes.) removed Lymphocyte + Eosinophil + Wt. = +37% B.M. = —17% Eyes +	Severe (n.s.) Prostatitis Tonsils + Teeth + Probable pituitary Needs sugar	Clean up infections before con- sidering Endocrine
16	F	24	2 — $\frac{1}{4}$		Cervix + Cystic ovary (Adhesions?)	Operate ovary and cervix
	M	27		Glycosuria Lymphocyte + Eosinophil + B.M. = —18% Sugar less than N	Probable pituitary dysfunction	Anterior lobe medication

TABLE VI

SUMMARY OF FINDINGS IN BOTH PARTNERS WITH ENDOCRINOPATHY

*Both Endocrine*

No.	Sex	Age	Married (contraception)	Data	Diagnosis	Recommend
4	F	28	10 — 1	Res. N <sub>2</sub> high Wt. = +69% B.M. < —12% Sugar —75%	Pituitary dysfunction Cervix +	Anterior lobe medication
	M	35		Urobilino- gen + Res. N <sub>2</sub> 17% Lymphocyte + Wt. = +20% B.M. = —12% Sugar more than +50%	Bilobar pituitary failure	Pituitary medication

TABLE VII  
NON-ENDOCRINE CONDITIONS CAUSING STERILITY  
*Both--Not Endocrine*

No.	Sex	Age	Married (contraception)	Diagnosis	Recommend
2	F	26	3 — 0	Syphilis Cervix +	0
	M	32		Bilateral epididymitis Azoospermia Syphilis	0
7	F	35	15 mos. — 0	Gonorrhea (Sch.-McN. +) Hypertension Tubes ++ Cervix +	0
	M	35		Malnutrition Tonsils?	0
10	F	35	9 — 1	Tubes + (old peri- tonitis)	Laparotomy Salpingostomy
	M	38		Normal	0
15	F	29	4 — 0	Vaginismus Focal infections	Plastic on introitus or Artificial insemination
	M	27		Normal	0

## COUNTY NEWS AND NOTES

### Kennebec County Medical Association

The annual meeting of the Kennebec County Medical Association was held at the Augusta General Hospital, Augusta, Me., Friday, January 4, 1929.

A clinical session was conducted at the opening of the session, at 3.00 o'clock. Dr. William R. MacAusland and Dr. Harry J. Lee, of Boston, conducted the operative orthopedic clinic,

and Dr. R. H. McKay, of Augusta, the surgical clinic.

At 5.30 P. M., there was a business meeting, which was presided over by the President, Dr. Richard H. Stubbs, of Augusta. The minutes for the last meeting were read and approved. The Treasurer's report was read and approved by the Auditing Committee, which was composed of Drs. Norman

Murphy, of Augusta, and R. N. Reynolds, of Waterville. Resolutions on the recent death of Dr. Albert H. Sturtevant, of Augusta, were read by Dr. Oliver Turner and resolutions on the death of Herbert W. Hall were read by Dr. George R. Campbell, of Augusta. It was voted that a copy of these resolutions be spread on the records of the Association, and also a copy sent to the family. Drs. R. D. Simons, of Gardiner, J. F. Hill and George A. Coombs, of Augusta, were appointed a committee on nominating officers for the ensuing year and they reported as follows:

President—Dr. H. E. Williams, of Mount Vernon.

Vice-President, Dr. Edward H. Risley, of Waterville.

Secretary and Treasurer—Dr. Frederick R. Carter, of Augusta.

Censor for Three Years—Dr. Samuel H. Kagan, of Augusta.

Censor for Two Years—Dr. George W. Alexander, of Gardiner.

Delegate to the Maine Medical Association—Dr. Richard H. Stubbs, of Augusta; Alternate, Dr. John P. Goodrich, of Waterville.

The nominees were elected.

Dr. Louis T. Fallon and Dr. David T. Berube, of Augusta, were elected to membership. The application to membership of Dr. William T. Tymms, of Fairfield, was received and referred to the Board of Censors.

Dinner was served at 6.00 P. M.

Following dinner, reports of cases were made by Drs. M. A. Priest and R. L. McKay, of Augusta, and papers of particular interest to the profession were read by Dr. Edward Paine, of Waterville, and Dr. George P. Sanborn, of Boston, and a paper on "Medical Defense" by Attorney Herbert E. Locke, of Augusta. These medical papers were followed by general discussion, which brought out many interesting points.

Those present at the meeting were Herbert Locke, Dr. F. R. Carter, Dr. R. H. Stubbs, Dr. William O'Connor, Dr. R. L. McKay, Dr. A. G. Long, Dr. C. W. Dyer, Dr. Oliver Turner, Dr. D. R. Campbell, Dr. Norman Murphy, Dr. M. A. Priest, Dr. L. F. Fallon, Dr. L. S. Johnson, Dr. Warren Sanborn, Dr. George Coombs, Dr. E. H. Jackson and Dr. H. J. Fredericks, of Augusta; Dr. G. W. Alexander and Dr. R. D. Simons, of Gardiner; Dr. J. F. Hill, Dr. V. C. Totman, Dr. F. T. Hill, Dr. J. E. Poulin, Dr. J. P. Goodrich, Dr. Edward Paine, Dr. R. L. Reynolds and Dr. A. H. McQuillan, of Waterville; Dr. J. D. Nutting and Dr. H. A. Milliken, of Hallowell; Dr. H. G. Lee and Dr. George P. Sanborn, of Boston, Mass.; Dr. Charles Bell, of Strong; Dr. W. W. Handee, of North Vassalboro.

Respectfully submitted,

FREDERICK R. CARTER, M. D.,

*Secretary.*

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### \*CONGENITAL SYPHILIS

By J. GOTTLIEB, M. D., Lewiston, Me.

In the great long ago there lived a shepherd named Syphilus who dared offend Apollo and desert his altars. Whereupon Apollo in his wrath sent him a dread disease, thereafter known as syphilis. This is the earliest legend relating to the origin of the disease.

Historians fail to give us an authentic record regarding the origin of the "Third Great Plague." Each author, motivated by a sense of patriotism and ignorance, ascribes its origin to that country against which national feeling happens to be at the highest peak. The hypothesis most generally accepted is that the crew of Columbus brought this scourge to the civilized world from the American natives.

The first outbreak in New England occurred in Boston about the year 1646, which is recorded in the diary of John Winthrop in the manner characteristic of his day:

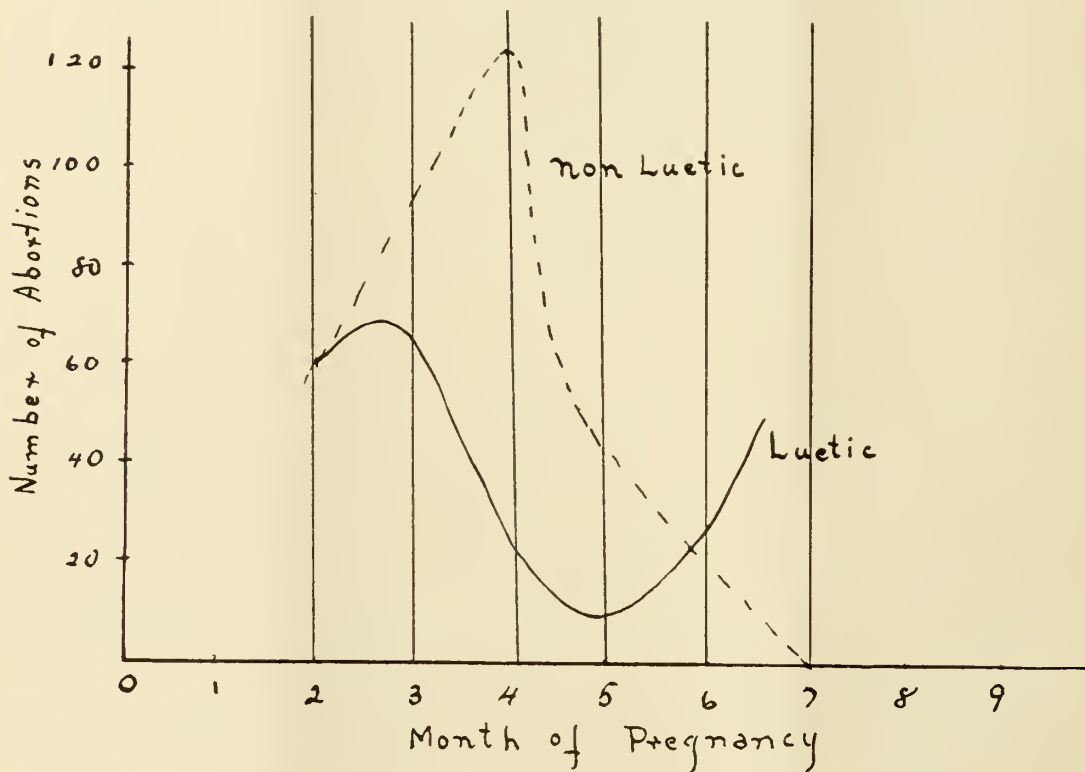
"There fell out also a loathsome disease at Boston which raised a scandal upon the town and country, though without just cause. One of the town—

having gone cooper in a ship into—at his return his wife was infected with *lues venera*, which appeared thus: Being delivered of a child, and nothing then appearing, but the midwife, a skillful woman, finding her body as sound as any other after delivery, she had a sore breast, whereupon divers neighbors resorting to her, some of them drew her breast, and others suffered their children to draw her and others let her child suck them (no such disease being suspected by any), by occasion whereof about sixteen persons, men, women and children, were infected, whereby it came at length to be discovered by such in town as had skill in physick and surgery, but there was not any in the country who had been practiced in that cure. But (see the good providence of God) at that very season there came by accident a young surgeon out of the West Indies who had had experience in the right way of the cure of the disease. He took them in hand, and through the Lord's blessing, recovered them all—in a short time."

\* Read before the Maine Medical Association at Belgrade Lakes, June 20, 1928.

The diagnosis of hereditary syphilis depends, to a considerable degree, upon the history of the parents. It is necessary to ascertain from the parents whether either one or both has ever been infected and the time elapsed since the infection. If the infection is rel-

born prematurely. The most common post-mortem findings in hereditary syphilis of the stillborn are osteochondritis, pneumonia, splenic and hepatic enlargement, syphiloderma, mucous lesions, leucic pemphigus and the presence of spirochaetes in the tissues.



atively recent, in relation to conception, the transmission to the fetus is much more likely. The history should include a record of any abortions or miscarriages. Abortions and miscarriages from the first to the fifth month of pregnancy are more commonly non-luetic; those from the fifth to the eighth are more commonly luetic. A succession of abortions and miscarriages, with increasing lengths of pregnancies, is characteristic of the disease.

The syphilitic fetus is frequently

Few children have outspoken signs of syphilis before the third week after birth. The sooner the symptoms appear, the more serious the prognosis. Snuffles and cutaneous lesions are the commonest mode of onset, though an increasing irritability and restlessness with causeless crying and screaming when the child is laid down or handled may first be noticed. The appearance of "hacking" or fissuring of the lips and an eczematous impetiginous syphilid at the angles of the mouth, whose scars form

the rhagades, with mucous patches, condylomas at the anus, enlarged spleen and bone lesions, complete the most characteristic features of the picture. The liver is seldom markedly enlarged. The aphonic “ery” is quite characteristic. The classical description of the marasmic syphilitic infant, with pot belly, withered skin of a coffee color, old man facies and syphilitic pseudo-paralysis of Parrot, is most often seen in the premature infant and the early severe types. Many children, however, with perfectly typical eruptions, visceral and blood findings, seem only slightly underweight and well formed.

In a study of 1,000 cases by Miller, 8.5% demonstrated symptoms the first week, 13.8% the second, and 24% the third, *i. e.*, approximately 50% by the end of the third week; 86% gave evidence of syphilis by the end of the eighth month. The subsequent curve descends quite slowly over a prolonged period. On this basis congenital syphilis may be arbitrarily divided into early and late types.

In late hereditary syphilis the individual may appear healthy for several years, even up to the 15th or 20th year. The following extract from a case record serves to illustrate the point:

Male, age 18, sustains injury to left knee. Consults orthopedic surgeon (clinic) for subsequent swelling of joint; no suggestion of luetic history obtained; no stigma present; strapping and palliative measures ineffective; X-

ray suggestive of lues; Wassermann is positive. At this time a slight injury to right eye results in a marked iritis; anti-luetic treatment effective. The social service department gets at work, with the result that the mother is found to have a positive Wassermann, one older brother is positive and another negative, a younger brother negative and a younger sister negative. The father is dead. This exemplifies the frequent precipitation of luetic symptoms by an injury.

The major landmarks of late heredosyphilis are a positive blood Wassermann, Hutchinsonian incisors, mulberry molars, eighth nerve deafness, tibial osteitis, periostitis and simple hypertrophy, osteitis of nasal septum with resultant snuffles and saddle bridge, epiphysitis, osteochondritis, interstitial keratitis, rhagades and scars, dactylitis and syphilitic facies.

The treatment of congenital syphilis brings us face to face with the most complex aspects of social medicine. The united efforts of the sociologist and the physician are the most promising weapons in the prevention of the disease. Pharmacological therapy may be divided into antenatal and postnatal treatment. The treatment of the pregnant mother does not differ in principle from the general treatment of syphilis. There is abundant evidence proving the efficacy of antenatal treatment and the surprising effect of even incomplete courses. [Slide.]

EFFECT ON CHILDREN BORN BY TREATING THE MOTHER

	Abor- tion	Still- births	Died First Week	Died before Third Year	Pre- ma- ture	Mature	No. of Cases	No. of Preg- nances	Living Babies
1. Untreated .....	19.0%	24.3%	8.2%	20.0%	20.8%	59.6%	183	510	56.1%
2. Badly treated.....	19.9	8.5	13.3	8.1	10.3	69.8	129	292	71.6
3. Well treated .....	10.8		1.5		3.0	86.2	27	65	89.2

Authorities differ in their opinions regarding the wisdom of instituting postnatal treatment in the absence of signs or symptoms in a suspected case of congenital syphilis. In the Vienna venereal clinic, treatment is instituted in all cases where the disease is sus-

pected. A course of treatment extending over a period of twelve weeks, during which period twelve doses of calomel (1 mg. per kilo body weight) and nine doses of neosalvarsan (.03 g. per kilo body weight), is recommended.

TREATMENT OF CHILD

Institute treatment in all suspected cases even if no symptoms are present and Wassermann is negative.

The following schedule is recommended:

- C Calomel, .001 g. per kilo body weight.
- N Neosalvarsan, .03 g. per kilo body weight, intravenous (not in veins) or intramuscularly.

1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
C		1st	Week				C		2nd	Week				N		3rd	Week			N
	C	4th	Week	C					5th	Week		N				6th	Week			
		7th	Week		C				8th	Week		N				9th	Week			
		C			C				C			N				N				

The interval between the doses of calomel may be two or three days, but

the interval between the doses of neosalvarsan must be at least three days.

The pooling of results obtained in dispensary maternity clinics indicates that from 10% to 15% of pregnant mothers give a positive Wassermann test—and this notwithstanding the fact that during pregnancy the Wassermann in a considerable number of cases becomes negative. In private practice the physician may feel that his knowledge of the patient and family is a valuable index in his exclusion of the disease. There can be no doubt, however, that the habitual performance of the test would forestall tragedies even in high

places. In doubtful cases repetition of the test is indicated.

It is highly probable that all mothers of syphilitic children are infected, although occasionally mothers of syphilitic infants have negative Wassermann reactions, and more of the mothers of older syphilitic children have weakly positive or negative reactions. In all such instances the maternal infection is latent. A strongly positive Wassermann reaction in the mother does not mean that her infant will necessarily be infected, and, consequently, a syphilitic



mother may bear a healthy child. When the mother's Wassermann reaction is positive with the cholesterolized antigen only, the chances are about ten to one that the infant is not syphilitic.

Syphilitic infants at birth have Wassermann reactions in the following proportion: 37% negative, 18% weakly positive and 45% strongly positive. After the first few weeks or months all syphilitic infants have strongly positive Wassermann reactions. Syphilitic infants over two months of age fail to show clinical evidence of the disease at one examination in 50% of instances.

Nonsyphilitic infants may give weakly positive Wassermann reactions at birth, which become negative later, but never give strongly positive reactions at birth or any other time. All mothers of such nonsyphilitic infants as give weakly positive Wassermann reactions have themselves reactions of equal or greater intensity than their infants. In these instances the fixing substances are probably transmitted from the mother to the infant without transmitting the infection.

In older children with active manifestations of syphilis, the Wassermann reaction is positive in almost 100%. A diagnosis of active hereditary syphilis in a child with a negative Wassermann reaction is justifiable only when the clinical evidence of the disease is absolute and unmistakable.

Placentas of syphilitic infants show characteristic changes in about 30% of the cases, and when such changes are present the infant proves to be syph-

ilitic in every instance. The typical syphilitic placenta is about 25% larger than normal; is paler than normal, oftentimes friable, with yellow patches, and occasionally with a fatty sheen. Microscopically there is a diffuse lymphocytic infiltration, with a marked endarteritic proliferation.

Notable advances have recently been made in the sero-diagnosis of syphilis. Hinton's results point to his test as simpler, more easily read, and more sensitive than the Wassermann. With rare exceptions, the reports of workers with the Kahn test are most gratifying. Particularly more sensitive are these tests in treated cases and hence of greater value to the clinician. Kline's microprecipitation method is perhaps even more sensitive than the macroscopic Kahn, and more easily performed after the mastery of its technique is acquired. In our laboratory, and with our limited number of cases, a slight variance has been found in the examination of serum by the Wassermann, the macroscopic Kahn and the microscopic Kahn tests, the latter proving the most sensitive and perhaps the most accurate. We are employing the Kline-Young technique.

With the establishment of the true values of these various methods, further refinement will be afforded in the diagnosis of syphilis and hence a more effective weapon in its prevention.

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From the Departments of Pathology of the Boston University School of Medicine and the Central Maine General Hospital.

**\*VISCERAL SYPHILIS**

By B. B. FOSTER, Portland

It is conservatively estimated that the incidence of syphilis in the United States is 10% plus, and that it ranks well to the front as a cause of death. Stokes calls it the third great plague.

Syphilis becomes a constitutional disease soon after the appearance of the chancre, and although we think of visceral syphilis as a later manifestation, actually a visceral lesion may exist exceedingly early. Autopsy of one of my patients dying four months after infection, showed roughing of inner surface of the aorta, due to syphilis. But it need not manifest itself clinically, and many disappear temporarily or permanently, of its own accord, or under treatment.

It would seem that a visceral lesion might exist in a quiescent state for years, to erupt at a time of lowered resistance. During this time the blood Wassermann test may prove either negative or positive. Since even experienced practitioners, who are perfectly familiar with this fact, often permit themselves to be misled by laboratory findings, I should like to repeat again, that it is not unusual for a patient with a positive blood to show no clinical symptoms of syphilis, and on the other hand, a patient with pronounced clinical symptoms may have a negative blood. One would believe that syphilis of the heart or aorta would always produce a strongly positive blood, but this is not always the case, since early in the involvement the blood is generally positive, but later less frequently so.

It should be borne in mind that pre-

sumably a blood which is negative now may at some previous time have been positive. Under these circumstances, a positive reaction can sometimes be obtained by repeated examinations, hence it is always well to repeat the test several times when in doubt. This explains why it is not unusual for a clinical diagnosis of syphilis to be discarded because of one negative blood report, and the patient later proved to have syphilis, as in the following two cases:

A young woman, 32 years old, came to the clinic three weeks ago with the following history: In October, 1927, she went to her family doctor with the complaint that she was menstruating every two weeks. He examined her, sent her blood to a laboratory, and when he received a negative Wassermann report, told her that she had a cancer and that she should have radium treatment. She entered a hospital and received radium treatment. About the first of January her throat became very sore and treatment gave no relief. In May, her physician again must have become very suspicious that he was dealing with syphilis, as he had her blood examined and gave her a hip injection. Her sore throat disappeared in three or four days and her blood Wassermann report returned a four plus. The diagnosis, of course, could have been made clear by biopsy and repeated Wassermann test.

In September, 1927, male, aged 35, was sent to the clinic for treatment. History of gonorrhea fourteen years ago, but no history of syphilis. Twelve years ago he began ailing, lost weight,

\* Read before the annual meeting of the Maine Medical Association.

nervous, and no appetite. Because his first blood Wassermann was negative, it was not taken again for twelve years. During that time he went from doctor to doctor, obtaining no relief. Then he fell into the hands of a man who takes routine Wassermann of all cases, and his blood was found to have become strongly positive. Under treatment his general condition has gained satisfactorily. Twelve years ago the laboratory technique was greatly inferior to that of the present day, and no patient should be allowed to suffer from a disease, the diagnosis of which is not clear, for this length of time without having the test repeated at frequent intervals.

There is one aspect of treatment that I should like to touch at this point. Occasionally we find a type of patient who does not seem to do well on anti-syphilitic treatment. In my experience, these have been the patients with a positive blood and lesions from which they get no active symptoms. Frequently there may be no other evidence than the positive Wassermann. Until we have more data on this point, it is open to grave doubt whether these patients should be treated at all. Giving treatment seems to light up a quiescent lesion, while continuing it only aggravates. In our clinic this has seemed particularly true of the nerve, heart and eye cases. This is illustrated by the following two histories:

A year ago a woman 56 years old came for a blood test. She had no symptoms, did her own housework and cared for a bed-ridden husband, who had locomotor ataxia. A short time before she had read a lay article on syphilis, which occasioned the curiosity to know what her blood test would be.

The blood Wassermann proved strongly positive. She refused a spinal-fluid examination, but requested treatment. She received treatment for eight weeks and lost several pounds in weight, whereas ordinarily the patient gains. During her interval free from treatment she had her tonsils removed, thinking that vague abdominal discomfort might be caused by infected tonsils. Following the tonsilleectomy she lost more weight. During last fall and again this spring, I treated this patient for periods of ten weeks. Instead of improving, her condition has remained practically the same—she has lost a little more weight, and her abdominal discomfort has improved very slightly, if at all.

In June, 1927, a female, aged 42, in very fair general health, came to me for the relief of a dermatitis on her neck caused by using a freckle lotion. Every patient passing through my hands has a blood Wassermann test, and this patient's blood proved strongly positive. Her early history was sufficiently convincing of infection, but I observed no clinical signs. When told that her blood was positive, she requested treatment, and received a series of twenty-five injections of bismuth at weekly intervals. Her general condition did not change under the treatment, and a few weeks after the treatment was stopped she developed cardiac symptoms.

In my experience these unfortunate results are liable to occur with any method of antisiphilitic treatment, and I believe them to be the direct result thereof. On the other hand, these cases are by no means the rule, and it is usually true that even patients showing no clinical symptoms improve under treatment.

For example: A twelve-year-old girl has, for several years, been sent to me yearly for a blood test, for the reason that her father is completely blind, due to syphilitic optic atrophy. Her blood has always been negative, and I have observed no symptoms of inherited syphilis in this child. In November, 1927, because of her family history, this child began having treatment and a blood examination at weekly intervals. The blood proved strongly positive at the eighth week, and has remained so ever since. The treatment has been continued, she has gained in weight, and her general condition has improved greatly.

While this is the rule, it is only fair to explain carefully to a patient who is not suffering from symptoms, that in very rare instances treatment can precipitate trouble. Usually, of course, the result of treatment is to forestall trouble in the future, but the patient has a right to decide whether he wishes to take this chance.

In treating visceral syphilis, one must keep in mind the fact that each pa-

tient must be dealt with individually, that the patient must be treated as well as the disease, and that every means of raising resistance or correcting a physical fault must be employed, for example, the removal of all diseased or even suspicious teeth. Perhaps the gain or loss of weight is as simple a gauge of the value of the particular therapy being used. A loss of weight consecutively for several weeks usually signifies that the drug being used is not the drug of choice, and a change to some other method of therapy is indicated.

While you can judge of my enthusiasm for the Wassermann test by the fact that I have it made on every patient who comes in my office, nevertheless, it is still true that the clinical diagnosis is more reliable.

#### TO SUM UP

Syphilis is a prevalent disease.

Everyone should have a Wassermann test.

If a clinical diagnosis of syphilis has been made, do not let one negative Wassermann test mislead you.

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#### NEW AND NON-OFFICIAL REMEDIES

Abbott Laboratories:

Ampules Dextrose, 20 cc.

Ampules Dextrose, 50 cc.

Tablets Cinchophen — A b b o t t, 5 grains.

Merck & Co., Inc.:

Bromipin, 33 per cent.

Parke, Davis & Co.:

Scarlet Fever Streptococcus Toxin  
for Preventive Immunization—P.,  
D. & Co.

E. R. Squibb & Sons:

Sulpharsphenamine—S q u i b b, 0.9 gm. ampules.

Tablets Ephedrine Hydrochloride —  
Squibb,  $\frac{3}{4}$  grain.

Tablets Ephedrine Hydrochloride—  
Squibb,  $\frac{3}{4}$  grain.



## NECROLOGY

**J. True Sanborn**  
**Waldoboro, 1851-1929**

A son of Rueben and Anna M. Carter Sanborn, he was born in Etna, Me., June 4, 1851, and lived in his village birthplace until he was about sixteen years of age, when he attended the academy in Newcastle. He was planning for a college education when his plans were changed, and he studied medicine for the three regular courses at the University of New York Medical School, where he obtained his degree in 1881. During the intervals of lectures he taught school, worked on a farm, and had a hospital appointment in New York.

He settled at once for practice in Waldoboro in 1881, and remained there until his removal to the Woodfords district in the City of Portland. He had a good practice in Portland and was much liked by his associates in medicine. He does not seem to have written medical papers, but he spoke when occasion offered, in the County and State medical meetings. Wearying of Portland, he returned to Waldoboro about 1920, and spent there the remainder of his life.

He was active for schools, wherever practicing, and was a stirring politician. He married, in 1888, Miss Annie Castner, a daughter of one of the old German descended settlers of Waldoboro, who died in 1928, after a short illness. Dr. Sanborn leaves to mourn his loss four sisters, and a brother, Dr. J. Warren Sanborn, of Waldoboro, also.

J. A. S.

**William Bruce Hunter**  
**Danforth, 1879-1929**

Obliged to abandon his practice for a short time from illness, Dr. Hunter left Danforth for his native town of Vanceboro, and died there Sunday, February 3, 1929.

He was born January 3, 1879, the son of Charles and Elizabeth Hunter, and had just ended his fiftieth year when he died. After a village school education, he took up the business of railroading, being agent at Vanceboro for the Canadian Pacific for a few years. Always attracted to medicine, he saved up money for his education, and entering the McGill Medical School at Montreal, he graduated with high honors in 1906. Whilst at McGill he carried off many prizes and was President of his class. He was not led aside from earnestness in his studies by his great popularity.

After graduating, he settled at first in La Grange, and then, seeing a wider field in Danforth, he removed there and was highly considered as a practitioner and citizen of the town. He was steady in his gifts of his time and of his skill in medicine and surgery to all who employed him, an unusually attractive and interesting practitioner and member of the community.

In 1911, he married Miss Margaret Bishop, of La Grange, and is survived by her, two brothers and two sisters at Vanceboro.

J. A. S.

## NOTES

**Meeting of Officers, Council and  
Secretaries of the County  
Medical Associations**

Immediately following dinner, the meeting was called to order by the President.

**MEDICAL DEFENSE LIABILITY AND  
INSURANCE**

Dr. Bryant, Secretary, explained the new provisions of the Liability Insurance and a general discussion followed.

**FULL-TIME SECRETARY**

Dr. Bryant explained the needs of a full-time man constantly on the job to look after the interests of organized medicine. The discussion brought out the various problems where a Secretary devoting his entire time to this work could materially increase the value of the individual membership in the Maine Medical Association.

**SECRETARIES' AND COMMITTEES'  
REPORTS**

Dr. George Cummings, Cumberland; Dr. Frederick Carter, Kennebec; Dr. S. S. Mullen, Sagadahoc; Dr. F. W. Mann, Aroostook; Dr. George Young, Somerset; Dr. B. F. Wentworth, York; reported for the past years activities in their respective associations.

Dr. John Sturgis, chairman of the Council, reported on the work of the Council.

**STATE MEETING**

Dr. T. J. Burrage gave an outline of the programme for the state meeting in June.

Dr. W. J. Renwick, chairman of Committee on Arrangements, outlined the plan for entertainment at Poland Spring for June 17, 18 and 19.

There is every indication for a very interesting and instructive programme for this meeting.

Dr. Mortimer Warren reported on the work of the Cancer Committee, which has been carrying on some very good work. Owing to the absence of Dr. Mitchell, there was no report from the Legislative Committee. There was some informal discussion of the various phases of legislative work and meeting adjourned.

**Dr. Lyman Spalding as a Candidate for  
the American Hall of Fame  
in 1930**

The time is fast approaching when the electors of the American Hall of Fame are to consider the qualifications of candidates for honor from a medical point of view. Morton has already been chosen for ether, McDowell for ovariectomy and Rush for medical letters. Candidates for 1930 are Reed for yellow fever, Gross for surgery, Gorgas for Panama. Looking around for medical candidates we note the name of Dr. Lyman Spalding, of New York, originator of the first national pharmacopœia in the world. His book has lasted one hundred and ten years, so far, and is likely to endure so long as medicines are used for human suffering.

Medicines in the year 1817 were compounded mostly in the offices of physicians. There was a crying need for more accuracy in compounding and dispensing. The idea of the originator of our national pharmacopœia was to print a complete treatise on all drugs in use, with rules for compounding and dispensing them, on one side in Latin, on the other in English. Foreign

speaking physicians should not be entrusted with powerful drugs to be compounded in a language which they did not understand. For them, Latin was chosen.

At a meeting of the New York County Medical Society in 1817, Dr. Spalding proposed a national pharmacopœia in place of two then in use, in Massachusetts and New York, with assistance from the three British pharmacopœias. For three years, with other interested physicians, he carried on the work. Letters from physicians in every state in the Union are published in his "Life," promising help in his labors. The national convention met in Washington in 1820, he was chosen to print the work, and in December of that year it was done. I repeat that it was the first national pharmacopœia in the world. When done, Great Britain, France, and other nations imitated it.

I move you that the Cumberland County Medical Society suggests for discussion by the officers of the Maine Medical Association and of the allied county medical societies, the name of Dr. Lyman Spalding, as a State of Maine Candidate for the United States Hall of Fame in 1930.

#### *Second Annual Graduate Fortnight of the New York Academy of Medicine*

The New York Academy of Medicine is making arrangements for a second series of lectures at the Academy, co-ordinated clinics, clinical demonstrations and courses in hospitals and teaching institutions of New York, on the subject of "Functional and Nervous Problems in Medicine and Surgery." The Fortnight will be held during the period, October 7th to 19th, 1929.

The profession is generally invited to attend. No fee will be charged for attendance at any of the meetings or clinics on the program.

#### *Annual Meeting of the American Association for the Study of Goiter at Dayton*

The annual meeting of the American Association for the Study of Goiter will be held this year at Dayton, Ohio, on March 25, 26 and 27. The primary object of this association is to bring together each year men who are especially interested in the study of goiter and its associated problems. Members of state and provincial medical societies are eligible and cordially invited to participate as attending members.

#### *United States Civil Service Examinations*

The United States Civil Service Commission announces the following open competitive examinations:

Associate Medical Officer

Assistant Medical Officer

Applications for Associate and Assistant Medical Officer must be on file with the Civil Service Commission at Washington, D. C., not later than June 29.

The examinations are to fill vacancies in hospitals of the Public Health Service, the Indian Service, and in other establishments of the Federal classified service throughout the United States.

Competitors will not be required to report for examination at any place, but will be rated on their education, training and experience.

On account of the needs of the service, papers will be rated as received and certification made as the needs of the service require.



Full information may be obtained from the United States Civil Service Commission, Washington, D. C., or from the secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city.

### **Are Automobiles Dangerously Polluting the Air of Our Cities?**

Surgeon General H. S. Cumming, of the U. S. Public Health Service, has recently announced the results of a survey undertaken to ascertain whether or not a health hazard from carbon monoxide existed in the streets of our large cities, inside of auto buses and in repair shops. Fourteen of the largest cities in the country were visited, having a combined population of over 19,000,000, and 250 samples of air were obtained for carbon monoxide analysis. These samples were analyzed by the iodine pentoxide method, using a liquid air cooling tube, which was shown to be necessary in order to eliminate gasoline vapor, a substance which tends to vitiate the results of the analysis. The street samples were taken in such a manner as to approach the most congested conditions that may exist at a busy traffic intersection. Hence it is felt that these results indicate the maximum hazard that may exist to-day in the metropolitan thoroughfares from automobile exhaust gas. The average of 141 tests made in city streets at peak hours of traffic showed a contamination of 0.8 part of carbon monoxide per 10,000 parts of air. Only 24% of all the street samples had more than one part of carbon monoxide in 10,000 of air, and in only one location, a covered passageway, were there as much as 2 parts per

10,000. Samples taken inside of auto buses yielded even lower concentrations of carbon monoxide gas. The figures for street air, when viewed in the light of present-day standards of exposure to carbon monoxide, do not reveal the existence of a health hazard from this source in our city streets. The only individual who may possibly be exposed to a health hazard from inhaling street air containing automobile exhaust gas is the traffic officer. This potential hazard may be minimized by diminishing the duration of exposure at the most congested traffic stations.

On the other hand, of the 102 tests made in 27 garages in the 14 cities visited, the average carbon monoxide content was found to be 2.1 parts in 10,000. More than half of the samples (59%) contained over 1 part of carbon monoxide and 18% of all the samples contained over 4 parts of this gas in 10,000 parts of air. These results for repair shops show a dangerous condition that demands the serious consideration of those concerned. This hazard in repair shops may be reduced to a minimum by not allowing the motors of automobiles to run longer than 30 seconds unless the car is in necessary motion or the exhaust is connected to the outside air by a direct, air-tight outlet of ample caliber. Without such outlet no automobile engine should be allowed to run indoors, except to reach its berth or to leave, by the shortest route. All of these samples were taken in garages of considerable size. The great danger to life is unquestionably in the small private garage containing one or two cars. Under any circumstances the discharge of an automobile exhaust into a roofed enclosure should be regarded as a hazardous act.



## United States Public Health Service

### PROGRESS IN TRACHOMA STUDIES

The U. S. Public Health Service since 1912 has been studying and combating the scourge of trachoma, which is prevalent in certain states, particularly areas in Kentucky, Tennessee, Missouri and Arkansas. Clinics and small hospitals have been established where persons suffering from this disease may receive skilled treatment. In addition to the treatment of cases, considerable study has been conducted, directed toward an investigation of the cause of this condition.

In a recently published article it has been stated that progress is being made in the study of the bacteriological factors which appear to enter into the cause of this disease. Scientific opinion varies somewhat as to the real cause of trachoma. Some authorities claim that it is due to bacteria. By some it is stated that diet or perhaps other factors influence its cause and spread. Recent studies by the Public Health Service seem to indicate that in all probability certain organisms or "bodies," which have been known for some time, are bacterial in character, and they, no doubt, originate from bacteria. The fact of their presence in a considerable percentage of trachoma cases is an indication that they may be of some significance in the causation of the disease, but the question cannot be answered definitely as yet.

## Medical and Pharmaceutical Co-operation

Perhaps one of the outstanding reasons for the progress in the scientific development of new products has been the spirit of co-operation which has existed between the medical profession and the pharmaceutical industry.

By this close co-operation, medical science has contributed to pharmaceutical progress, and the manufacturing pharmacists of the country, in turn, have made a definite contribution toward the development of new medicinal products.

On Wednesday, December 5, the officials and members of the medical, pharmaceutical and allied professions of Lafayette, Indiana, were addressed by Dr. Charles E. Vanderkleed, Chairman of the Contact Committee of the American Pharmaceutical Manufacturers' Association.

The subject of Dr. Vanderkleed's address was "Improvement in the Quality of American Drug Products Due to Co-operation in the Industry." It is interesting to see the representatives of the several allied professions making arrangements for a periodical study of mutual interests of professional nature, with a view to increasing mutual usefulness.

It is only through medical and pharmaceutical co-operation that the greatest advances can be made in conquering disease and improving the health of the American people.

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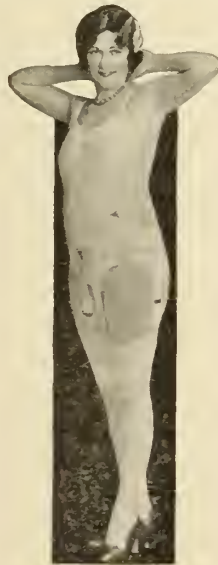
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OF THE

## Maine Medical Association

Published under direction of the Council of the Maine Medical Association

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### \*THE ROLE OF LATENT AND ACTIVE INFECTION IN JOINT PATHOLOGY

By W. R. MACAUSLAND, M. D., Boston, Mass.

A comparatively new doctrine has greatly increased the knowledge of the medical profession of the etiology of many diseases. This doctrine is that of focal infection. Bacteriologists, among whom may be mentioned Adami, Poynton and Payne, Billings, and Rose-now, have to a great extent made possible this progress by careful and painstaking work in segregating and classifying the pyogenic organisms responsible for various lesions. Attention has been centered on all the possible foci of infection and their portals of entry into the body, thus opening up a large field of preventive medicine, too little of which has yet been explored. In this talk I will attempt to call attention briefly to some latent and active infections, especially as they concern joint lesions.

Infections may be divided into two classes, the acute and the chronic. The acute infection gives rise to constitu-

tional symptoms of sudden onset and of more or less severity. The course of the infection depends upon the virulence of the invading bacteria and the resistance offered by the body cells. A chronic infection is one in which the body is invaded for a varying length of time by a number of bacteria which are of insufficient dosage to cause acute symptoms. The course of a chronic infection varies greatly in different individuals. Very often it exists as a latent source of infection, not recognized or causing notable symptoms until the individual's power of resistance is lowered by nervous strain, worry, malnutrition, pregnancy, overwork, intercurrent disease, or age. It is, therefore, quite clear that body resistance is the controlling factor in warding off infections of all kinds.

Very frequently joint lesions occur simultaneously with acute diseases. In such cases the joint symptoms are only

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\*Read before the Kennebec County Medical Association at Lakewood, July 27, 1928.



one phase of the specific infection and generally clear up as soon as the systemic symptoms. These diseases may be classed roughly as the upper and lower respiratory diseases, including tonsillitis, mastoiditis, sinusitis, bronchitis and pneumonia; the acute diseases of the gastrointestinal tract, including acute appendicitis, acute peptic and duodenal ulcer, and acute pancreatitis, cholecystitis; the acute inflammations of the genitourinary tract, chiefly gonorrhea and the systemic diseases, such as typhoid fever, scarlet fever, and frequently influenza. We will now discuss each of these types, both as to portals of entry and breeding places for bacteria.

The lymphoid tissue of the upper respiratory tract is the most common source of infection. It is generally conceded that it serves as the portal of entry for measles, scarlet fever, acute articular rheumatism or arthritis, pericarditis, myocarditis and endocarditis, osteomyelitis, and streptococcus and staphylococcus infections. It is a possible portal of entry for chorea, neuritis, some forms of nephritis, pleurisy, iritis, phlebitis, and even appendicitis.

It is sometimes difficult to determine by examination the possibility of infection, especially in the tonsils. They may be large and round and may be hanging freely in the throat, in which case they are more likely to be able to resist infection easily. Diseased tonsils are usually partially or wholly submerged. Improper drainage in the crypts allows the harboring and breed-

ing of bacteria. The virulence of the bacteria and the time they are allowed to remain decide the nature of the resulting infection. Acute tonsillitis is the most familiar example of acute infections. Usually the mucous membrane acts as a barrier to invasion by bacteria, but they may and do pass through without causing any local symptoms. They are carried into the blood stream, where they cause some chemical changes. The site of their final resting place is determined by their so-called elective affinity for certain tissues, especially those weakened by previous infection. Chronic absorption of bacterial products in the tonsils occurs when the decomposed masses, which are retained for some time in the crypts, are ejected into the mouth and then into the gastrointestinal tract.

Inflammation of the sinuses is another frequent source of infection and is particularly difficult to detect without careful examination and often draining. Mastoiditis and pharyngitis without tonsillitis are sometimes found to be the sources of an infection.

In recent years, great emphasis has been laid on the teeth as a source of specific and general infection. An infected tooth is a veritable fortress for bacteria, since the dissolved substances can pass into and out of the tooth while the defensive mechanisms of the host can reach the bacteria only through the natural openings of the root. The infected tooth elaborates both bacteria and toxic substances, which may cause profound changes in the body, espe-



cially in the blood stream. Very careful investigation and experimentation has been done on dental infection by Weston Price. He has found that these infections are potentially harmful, but may not cause apparent injury until the individual is subjected to a strain. Statistics of Stauffer may be taken as characteristic of the clinical findings in many cases of arthritis. In two hundred cases of arthritis he found that over two-thirds had diseased tonsils, one quarter had sinusitis, and one-tenth of these cases had infected teeth.

The lung sometimes acts as a portal of infection, and the primary lesion there is sometimes accompanied by manifestations in the joints. This is true particularly of severe bronchitis and pneumonia.

The possibility of invasion of bacteria through the gastrointestinal tract is a much mooted question. It is generally admitted that bacteria may enter through abrasions in the lining of the wall, and that this is more likely in the condition known as intestinal stasis.

Of the acute inflammations of the genitourinary tract the most common is that resulting from direct infection by the gonococcus. Arthritis of a single joint, most often the knee, is not uncommon from gonorrhea.

In the acute systemic diseases, such as typhoid, scarlet fever and influenza, there is often an acute flare-up in the joints, which subsides gradually along with the general symptoms.

Besides these forms of acute joints, there is the joint which becomes in-

fectected directly from a penetrating wound or from an extension of an osteomyelitis from the shaft of the bone. All these infections first affect the joint capsule and the peripheral portion of the synovial membrane. There is an exudate of serous or serofibrinous material which later forms fibrous tissue, the contraction of which causes a scar-like covering of the joint, which decreases motion. There is a great increase in capillaries. In the second stage the synovial membrane sends out small finger-like growths. A variable amount of granulation tissue appears in the joint. Gradually the joint cartilage becomes thinned and fibrillated. Attempts at repair by proliferation of perichondral membrane result in bony ankylosis. The proper care can alleviate the progression of the process. Arthritic lesions are often accompanied by skin lesions, notably erythema nodosum, herpes zoster, and eczema.

In all acute joints there is an area of redness and swelling over the joint, exacerbation of fever, and marked leucocytosis. There may or may not be a purulent discharge. In the majority of cases they are treated surgically, opened, drained and washed thoroughly with a saline solution. Rest is essential, either by splinting, traction, or plaster cast. It is most important that the joint be kept in the proper position to prevent deformity.

The most common causes of chronic arthritis are strains of streptococcus, gonococcus, tubercle bacillus, bacillus typhosis, and spirocheta pallida. The

portal of entry of these bacteria is generally the same as in the acute conditions, but the virulence is not as high and the tissue reactions are consequently lower. Instead of a purulent exudate it is a fibrinoplastic and the area of infection is partially walled off. Obliteration of the blood supply results in malnutrition of the tissues, which, in turn, leads to secondary metabolic changes in the joints and the surrounding structures. Continuous doses of infections add to these changes in the joints and often terminate in deformity, which is increased by the presence of myositis.

Since it may be readily seen that sub-lethal doses of an infection may lead to changes in the joint mechanism without any appreciable symptoms, it is of the utmost importance that all infections be arrested early. The detection of foci of infection can be obtained only by careful periodic physical examinations. This subject has been the theme of many editorials and papers in medical journals, but as yet the medical profession has not found an adequate means of meeting this requirement. The only facilities open to the public for physical examination are those offered by such institutions as life insurance companies or life extension courses. These are valuable, inasmuch as they focus public attention on the value and necessity of periodic health examinations, but the interpretation of the results of these examinations is seldom accurate.

Elimination of the foci of infection

is the first essential in the treatment of either acute or chronic joints. If the tonsils show signs of disease they should be removed. Doubtful dentistry should be examined by X-ray. All lymphoid tissues in the nose and throat, as well as accessory sinuses, should be thoroughly examined. An inflamed appendix should be removed and focal infections in the gastrointestinal and genitourinary tracts treated. It must be remembered that careful examination must precede all operations for removal of foci to prevent unnecessary surgery. In some cases the removal of the focus is not followed by rapid or entire recovery. This may be due to the fact that bacteria can and do continue living in the joint after the focus has been removed, or that there are other undetected foci of infection. In either case, building up the resistance of an individual by rest, sunshine, air and good food is the only true cure.

While drugs, serums, and vaccines may be helpful, their aid is only temporary, and the natural defensive mechanism of the body must be increased to get rid of existing infection or to prevent further infection.

Ankylosis, either fibrous or bony, is a most usual sequela of joint infections. In the majority of cases it has been allowed to occur in a deforming position. An ankylosed limb may be useful if it is stiff in a functional position. The knee should be kept extended, the elbow flexed, the foot at right angles to the leg, the hip and spine in extension,

and the shoulder in abduction, slightly forward of the med-sagittal plane. The amount of disability also depends on the joint involved and the stability of the ankylosis.

Mobilization of ankylosed joints must follow careful study of the individual, his health and occupation, as well as the joint involved. If the ankylosis does not interfere seriously with function, an operation procedure is not to be considered. The presence of any active or latent infection is an absolute contraindication to a mobilizing procedure.

The most satisfactory results in mobilization are obtained by arthroplasty. This operation may be defined as one in which some material is interposed between previously fused joint ends to procure permanent motion, good strength and stability without pain. The technique has been perfected by J. B. Murphy, Putti of Italy, Baer of Baltimore, Campbell of Memphis, Neff of Chicago, and by the writer. Various substances have been used for interposition, but flaps of free fascia lata have been found the most satisfactory.

The essentials of the technique are careful asepsis, uncovering of entire joint surfaces, careful modeling of bone ends, interposition and firm suturing of a piece of fascia lata. The after treatment is of prime importance. The joint must be kept at rest in a cast for a definite time, depending upon the joint involved. Passive exercise, massage, and some forms of hydrotherapy are of value in regaining motion after operation.

The following two cases are typical of the elbow and knee cases which have come under my care.

Case I.—I. H. This patient fell on her elbow four months before entering the hospital. She had suffered considerably and was unable to use her arm. Several manipulations under ether failed to procure adequate motion. Arthroplasty was advised. On entering the hospital the elbow was slightly tender and motion was limited to 40 degrees. Pain had subsided, but the joint was enlarged and the bones felt rough. The roentgenogram showed an old fracture through the end of the humerus. An arthroplasty was done with the interposition of a free flap of fascia lata. The arm was put up in plaster in acute flexion. Three years after operation the range of motion was from 37 to 125 degrees.

Case II.—F. O. K., aged 31 years. Patient had an acute Neisserian infection in left knee. The opening of the joint resulted in ankylosis. The knee was in good position, but there was no motion between tibia and femur. Since manipulations were unsuccessful arthroplasty was advised. Twelve years after the operation the knee was useful and painless. Patient was able to do everything and had to stop to think which was the operated knee. The leg was straight with power in the quadriceps. There was complete extension and 95 degrees of flexion. There was no lateral mobility.

## \*HISTORY OF PENOBSCOT MEDICAL ASSOCIATION

By DR. DANIEL McCANN, Bangor, Maine

Dr. Daniel McCann, of Bangor, gave an historical address, in which he reviewed the early efforts of the medical profession in Bangor to organize and also outlined the history of the present county association. This address, which is printed in full herewith, will be of interest both to the members of the medical profession and to the laity.

Dr. McCann said:

In the year 1828, what is now the City of Bangor was a town, with its Selectmen, Town Clerk, Treasurer and Collector. Its population was about 2,800. On the sixteenth day of January of that year, the physicians of the town of Bangor assembled for the purpose of forming a medical association, probably the first attempt of the local physicians to organize for their mutual benefit and protection.

With due deliberation they drew up a code not particularly different from modern codes. To this code was appended the name of Dr. Hosea Rich and twenty-one others, a goodly number of physicians for a town the size of Bangor. A fee table was adopted and it presents some interesting features. Fees seem to have been determined by distance and this demanded a certain fixed point. Kenduskeag Bridge was selected. The fee fixed for a visit within a radius of one mile from this point was 4s6d, about seventy-five cents, and if medicine was furnished, 6s or about one dollar. Additional dis-

ance was charged at the rate of thirty five to fifty cents a mile. Bleeding, extracting a tooth, or dressing a wound at the surgeon's house was fifty cents, but woe to the individual who dared to incur disease through lapse from virtue; he became a victim of from ten to twenty dollars. These fees were the lowest permissible, but we must not infer that these men were lacking in wisdom, for it was cautiously provided that these fees might be suitably increased when circumstances seemed to warrant it, and it was provided that a double fee should always be charged for a first visit in cases in which an irregular practitioner had been previously in attendance. I find no special mention of obstetrical fees.

These ancients were not disturbed with the question of contract practice, for it is recorded in one of the early meetings that it was voted, "that the faculty may severally make proposals for medical attendance of the paupers at the town almshouse," and on April 15, 1831, it was voted, "that forty dollars was the lowest price for which the paupers of the town of Bangor at the poorhouse should be contracted for, and the privilege of sending in this contract be decided by lot." The meeting at which this momentous issue was decided was held at the rooms of Dr. John Mason.

Another interesting record: At the meeting held December 5, 1831, it was

\*Read before the seventy-fifth Anniversary of Penobscot Medical Association, Feb. 19, 1929



"voted that every member absent from the meeting one-half hour after the time appointed shall pay a fine of one dollar."

The rules of this society provided that an essay on some medical subject should be read at each meeting. It seems to have been observed with commendable fidelity, and it is interesting to note that at the meeting held October 4, 1837, it was voted to excuse Dr. Dean from reading an essay because he had lost his manuscript; but this sufficient plea was not accepted without discussion.

Another interesting record from the transaction of this Association has an historical value worthy of note. It refers to Asiatic cholera.

In a report made by the Association were embodied "rules and regulations to be observed by the inhabitants of this town in relation to Asiatic cholera, a malignant disease now ascertained to be prevailing in the province of Lower Canada." The report gave good counsel and concluded by saying: "We would further most religiously enjoin it upon the good people of this place, to divest themselves from all unreasonable alarm and excitement, believing, as we do, that fear and depression of spirits are among the most powerful predisposing causes of the diseases which they so much dread; that cheerfulness, temperance, cleanliness and proper attention to regimen, in most instances prevents the disorder or renders it mild and manageable."

It also appears as of record on the 2d day of June, 1832, by agreement

with the Selectmen of the town, the Association of Physicians of Bangor came under obligation "to vaccinate all such persons, inhabitants of Bangor, as shall not object to the same. And the Selectmen agree to pay to the Secretary of the Association, twenty-five cents each for so many of the said inhabitants as shall have been vaccinated by either of the said associated physicians on or before the 8th day of December, 1832, provided the inoculating physician shall return to the Selectmen the names of the persons vaccinated, together with a certificate that they have had the disease."

Acting under this agreement, the town was divided into seven districts, and one physician assigned to each district; and thus was undertaken the first systematic vaccination of the people of Bangor.

The first officers of this society were: Dr. Hosea Rich, "moderator," Dr. J. P. Dickinson, "secretary of the faculty." The name adopted was "Association of Physicians of Bangor." This Association was not unmindful of the cultural side of medicine, and it is recorded that it attempted to establish a library, but the effort was unsuccessful. This is not particularly discreditable to these men when we consider that an effort has been made by the various medical organizations, including this Association, but with no better success.

On and after December 23, 1835, the society was known as the "Bangor Medical Association." This Association continued to meet with reasonable regularity until March 8, 1843, when

through professional jealousy, quarrels ensued, resulting in the organization of a larger association, which admitted to membership physicians from neighboring towns, and was named "The Penobscot Medical and Surgical Association." It was incorporated March 25, 1837. It is a matter of interest that the act of incorporation bears the signature of H. Hamlin, speaker of the House. Mr. Hamlin, as you all know, was Vice President of the United States. Just how long this Association continued to live is not known, but the following notice in the *Bangor Courier* of February 4, 1840, would indicate that it survived at least three years:

"Penobscot Medical and Surgical Association. The members of Penobscot Medical and Surgical Association are notified that their semi-annual meeting will be holden at the Penobscot Exchange in Bangor, on the second Wednesday of February next at eleven o'clock, A. M. An address may be expected.

JOSIAH DEAN, *Secretary.*"

From March 8, 1843, the date of the last meeting of the "Bangor Medical Association," there is no positive evidence that there was any medical organizations in Bangor. It is, however, a reasonable belief that men who demonstrated such a capacity for organization and desire for mutual improvement did not permit so many years to pass without making some organized effort to "carry on," although no record has been found.

My intention in dealing with these early medical organizations, prior to the birth of the Penobscot County Medical Association, has been to develop a direct continuity of men and purposes in an effort to make this Association heir to its predecessors and thus have this day, not only a memorial to their existence, but also to the one hundredth anniversary of organized medical effort in Bangor and Penobscot County.

Many of the medical profession who participated in the organizing and functioning of the earlier societies were men of vision and realized the need of a medical association of broader scope for mutual professional improvement and the protection of the interests of all.

There seems to be a dominating spirit among them in the person of one Dr. Hosea Rich. A meeting was called at his house. Following is the record, on the 15th day of February 1854: "Agreeable to a notice previously given to the medical profession of Bangor, the following gentlemen assembled at the house of Dr. Hosea Rich, in Bangor, to take preliminary steps for forming a County Medical Association. Dr. H. Rich, Bangor; Dr. J. P. Dickinson, Bangor; Dr. S. Laughton, Bangor; Dr. E. M. Field, Bangor; Dr. J. C. Weston, Bangor; Dr. C. Seavey, Bangor; Dr. W. H. Brown, Bangor; Dr. W. H. Allen, Orono; Dr. Charles Alexander, Orono; Dr. J. C. Bradbury, Old Town; Dr. R. K. Cushing, Brewer; Dr. H. M. Page, Brewer; Dr. J. B. Pollard, Orrington."

Dr. Dickinson was Chairman and Dr. William H. Brown, Secretary. On motion of Dr. Cushing, it was voted "that we deem it expedient to form a County Medical Association, to be called the Penobscot County Medical Association." The first officers were: President, Hosea Rich; First Vice-President, James C. Bradbury; Second Vice President, John Benson; Secretary, William H. Brown; Corresponding Secretary, James C. Weston; Treasurer, Charles Alexander; Standing Committee, Joshua P. Dickinson, William H. Allen, Horatio N. Page, Samuel Laugh-ton, Paul M. Fisher.

Thus the flourishing County Medical Association was brought into existence seventy-five years ago. It had its trials and tribulations. We can well understand how difficult it must have been until recent years for physicians from adjoining towns to attend meetings, with the horse the only convenient means of transportation, and roads which did not encourage a mania for speed. From the records it appears that numerous called meetings were obliged to adjourn for want of a quorum to transact business. But these men were not weaklings; they were steadfast in their purpose and persisted in calling meetings until interest was created and attendance increased, and on the 18th day of May, 1870, it was voted to hold monthly meetings. There were times when it was difficult to assemble a quorum even as late as the '80s and '90s, but due to the persistent efforts of our lamented colleague, Dr. William C. Mason, more than any other member of

the Association, interest was renewed, and soon the society was in a flourishing condition and has remained so since.

Unfortunately, at this remote period, it would be quite impossible to present any first-hand knowledge of the stalwarts who founded this Association, but from an address given by Dr. Frederick C. Thayer, of Waterville, at the semi-centennial celebration held February 22nd, 1904, they were men of dignified mien, self-reliant, perfect poise, cultured and of marked intellectual power, professional progenitors, of whom we may be justly proud.

From the records they were also capable men. Vastly different in these days when modern methods have rendered surgery rather fool proof in the matter of mortality. It appears from the records that all worth-while matters in the practice of medicine were presented at the meetings of the Association and thoroughly discussed, and there is evidence in the records of a very high degree of intelligence in the handling of medical and surgical emergencies. We hear much in these days about the "patient only matters," as if it was a modern novelty. One needs but to read the records of this Association for the past seventy-five years to learn how important the patient was to these physicians. It was common for them, at no little inconvenience, to bring their patients from surrounding towns to these meetings, that they might have the best advice to be had at that time. The physicians of the city also brought troublesome cases to



be worked out. The patient was examined, diagnosis made, and treatment suggested.

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There were meetings at which other matters than medicine were considered. It is recorded that after due consideration the members voted "that twenty-five cents was insufficient and it was their belief that the city should pay to the city physician at least three hundred dollars per annum."

At the February meeting, 1870, Dr. Sumner Laughton presented a pathological heart taken at a post-mortem which should be of much interest and a warning to some of you gentlemen. One of the ventricles was ruptured. After a serious discussion of the causes of such an accident, Dr. Laughton gave it as his opinion that it was due to the excessive use of tobacco.

An important event in the history of this Association took place on February 22, 1904, the fiftieth anniversary of its foundation. The celebration took place at the Bangor House. There were seventy-five present. The occasion was graced by the presence of the President of the Maine Medical Association, Dr. Augustus S. Thayer, of Portland; Dr. E. A. Thompson, of Dover, the oldest living member of the Association; Dr. Frederick C. Thayer, of Waterville, ex-President of the Maine Medical Association and President of the Alumni of the Maine Medical School; Dr. Sherman W. Boone, representative of the North Aroostook Medical and Surgical Society; Dr. Hiram Hunt, of Greenville, ex-President of the Maine Medi-

cal Association and representative of the Piscataquis County Medical Society; Dr. Edwin M. Fuller, of Bath, ex-President of the Maine Medical Association and representatives of the Maine Academy of Medical Science; Dr. Charles E. Williams, President of the South Aroostook Medical Association; Dr. Thomas U. Coe, a member for many years, retired from practice; Dr. E. N. Mayo, forty-four years in practice; Dr. Byron Porter, a practitioner for fifty-four years; Dr. Samuel B. Hunter, of Machias, ex-President of the Maine Medical Association and representative of the Washington County Medical Association. Each of these gentlemen gave an address. Dr. D. A. Robinson, of Bangor, read a fine history of the Association, and if his health permitted I have no doubt he would have been chosen historian unanimously. I am sure we all regret his absence and hope for his speedy restoration to health. Dr. George A. Phillips read an original poem; Dr. Augustus C. Hamlin was toastmaster, and your historian of this evening had the honor of presiding.

Dr. William C. Mason, Dr. D. A. Robinson and Dr. Everett T. Nealley were the committee of arrangements. Of the thirteen who participated in the program of the evening only three are living—Dr. D. A. Robinson, Dr. Sherman W. Boone and myself. Of the seventy-five present, thirty-four have passed to their reward.

Of the various important groups constituting social life, the medical group has the distinction of being the only one constantly laboring to destroy its means



of sustenance. While other groups are feverishly laboring to devise means to increase their incomes, the medical group is laboring to prevent disease. Witness yellow fever, the multitudes of lives saved, and the millions of dollars spent to perfect suitable quarantine may now be used for necessary good works. Diphtheria has been virtually conquered; in fact, we could spend a profitable evening passing in review the successful efforts of the medical profession to train people how to avoid or modify the severity of disease, but we are interested in the history of the Penobscot County Medical Association, and it has to its credit a remarkable accomplishment in the line of preventive medicine, which it is well for those of us familiar with it to recall and proper for those of us unfamiliar with it to be informed.

Prior to and including 1904, Bangor labored under the misfortune of annual epidemics of typhoid fever, and frequently they were semi-annual, numbering from one hundred to several hundred cases. In 1904, from March to May, about 550 cases were reported, and from the beginning of the epidemic to its end there were more than 1,000 cases and about fifty deaths.

Time and again individual members of the profession pointed out to citizens the source of the infection. Some of the more intelligent were convinced, but the great majority of the citizens remained indifferent, and some drastic action was necessary. I was President of the Association at that time and at a meeting held in the Board of Trade

rooms at City Hall, April 19, 1904, I charged the members of the organization with a grave responsibility in the matter of these epidemics of typhoid fever, for we knew the cause and as an organized body remained silent. The responsibility was promptly accepted and a decision formally to notify the public arrived at, and on April 22, 1904, a public declaration of the faith that was in us was given to the press. I will read a short extract from the *Bangor Daily Commercial* of that date:

"The members of the Penobscot County Medical Association consider it fitting at this time to express their opinion to the public concerning the cause of the large number of cases of typhoid fever in Bangor and vicinity, and the means that should be taken to ameliorate the present condition; the opinion is unanimous that the majority of all cases of typhoid can be traced to those cities and towns taking their water supply from the Penobscot River." Then follows advice to the public for its protection. Hostile criticism arose among the business interests on the grounds that we had dealt the city and its business interests a staggering blow, without sufficient thought and without sufficient knowledge.

The leaders in the movement were stigmatized as "grafters," wishing to help financial interests anxious to get possession of the water works.

There existed at that time an organization of the young business and professional men of the city. They took the matter up in a most reasonable way and after a most painstaking and thor-

ough investigation and examination of the city water supply were convinced of the correctness of the Association's position.

They formulated and published a report, which brought about marked improvement in the filtration plant, and although we have not sufficient filtration to give us clean water, we have since been free from epidemic typhoid fever traceable to the city water supply. The financial loss to the profession was large; it was willingly and cheerfully accepted, and through the efforts of this Association Bangor has been made a healthier and a better place to live in.

When I began practice in Bangor about forty years ago, professional relations were not particularly cordial. There were members of the profession who were not on speaking terms, and the cause was professional jealousy. The young man coming to town had a hard time to get a start. He was looked upon with suspicion by many of the older members of the profession and distrust by a large part of the community. This has happily all changed and largely through the efforts of this Association.

It was the custom for the meetings to be held monthly in some room in City Hall in the afternoon. After a time the annual meetings were held at some of the hotels or restaurants, with a dinner, and the attendance was usually large. It seemed therefore wise to have the monthly meetings at a hotel, and a

dinner, and it was so decided; there has been no occasion since to be anxious about a quorum. It has worked wonderfully well; we have learned to know each other better and a finer spirit prevails. The newcomer is welcome, professional bickering and jealousies are no longer conspicuous among its members, and it has once again been proven that the best way to get to men is through their stomach.

There have been as many as one hundred and sixty members signed; four have been expelled, two reinstated. The number dropped for the non-payment of dues I do not know, but I am sure they are few. At present there are ninety-eight members. There have been four hundred and seventy-five meetings. It has been a matter of great interest to read some of the records of this Association for the past seventy-five years. They demonstrate the progressive character of its members and from them could be written the progress of medicine during that period.

Most of the members who nurtured this Association through the trying periods of its existence have passed on, and soon all will have passed from the field of their activities and new hands must mould its future.

I know that through their efforts it has earned the right to live, and through the efforts of you who receive it may it remain ever old and ever new, and may perpetuity be its destiny.

### American College of Physicians to Hold Thirteenth Annual Clinical Session in Boston, April 8th to 12th, 1929

The American College of Physicians will hold its Thirteenth Annual Clinical Session in Boston, April 8 to 12. Dr. Charles F. Martin, Dean of the Faculty of Medicine, McGill University, is President of the College this year, and Dr. John H. Musser, Professor of Medicine at Tulane University Medical School, is President-Elect and will be inducted to the Presidency toward the end of the Boston meeting. Dr. James H. Means, Jackson Professor of Clinical Medicine at Harvard Medical School and Chief of the Medical Service at the Massachusetts General Hospital, is general chairman of all Boston committees having charge of arrangements for the Clinical Session of the College in April.

The program provides hospital visits, clinic, demonstrations and ward walks during the forenoons at fifteen different Boston hospitals, and for general scientific sessions each afternoon and evening in the Assembly Room of the Hotel Statler, which will be headquarters. Eminent authorities in their special lines will present the results of their work before an audience competent to appreciate the value of the contributions.

A Symposium on Deficiencies will take place the first evening of the session, and will be of particular interest because of the fact that deficiencies are nowadays assuming a far more widespread and important role than had heretofore been anticipated. They have come into their own as factors producing acute and chronic disease on a par perhaps with infections. The committee has secured for the program men who can speak with authority on a variety of aspects of this important subject.

Another special feature is a review of the present status of vaccine and serum prophylaxis and therapy, designed to give the internist a rapid survey of the field. The speaker, Dr.

Benjamin White, of Boston, is an authority on these subjects and can give the high spots in rapid and yet forceful fashion.

The annual banquet of the College will be held Thursday evening, April 11th, when Dr. George E. Vincent, President of the Rockefeller Foundation, will deliver the chief address. The Convocation, for the conferring of Fellowships, will take place Friday evening, April 12. Dr. Charles F. Martin, of Montreal, will deliver the Presidential address.

Programs and details concerning reduced fares, admission, etc., may be secured from the Executive Secretary, E. R. Loveland, 133-135 South 36th Street, Philadelphia, Pa.

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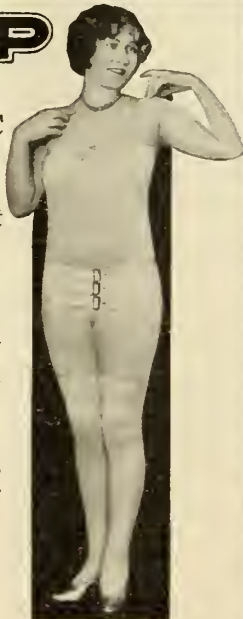
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## Maine Medical Association

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### \*BONE AND JOINT SYPHILIS

By HENRY W. LAMB, A. B., M. D.,

Assistant Orthopedic Surgeon Children's Hospital,  
Assistant Orthopedic Surgeon Maine General Hospital,  
Portland, Maine.

The battle as to the country of origin of the "great pox" or syphilis still wages. Each country to which the world points as the birthplace of this plague refuses to accept either the conception or the delivery of the orphan. Yet the "great pox" is still with us, and its origin is, after all, only a point of academic interest.

However, we are sure of this one thing, that no disease of the human body displays such chameleon-like tendencies as does syphilis, and the days of the diagnostician are constantly beset by the ever-changing signs and symptoms which the disease presents. Orthopedics is no exception to the rule, and one is continually confronted with the problem of determining, within reasonable question of doubt, as to whether the *treponema pallidum* is the infecting organism which has brought

about the existing condition in the bone or joint.

Taking into consideration the present diagnostic methods, together with the laboratory procedures at our disposal, the problem might not seem difficult. But with this disease, almost more than any other, one must always bear in mind that portion of the Hippocratic oath which reads to the effect that life is short, art is long, diagnosis difficult, and judgment fallacious.

That the incidence of bone and joint syphilis is low, undoubtedly is due to the fact that at least 5% of the luetic infants are born dead, and only 25% of those congenitally affected survive the first year. Then, too, we must take into consideration the fact that the differential diagnosis in many cases is difficult, and the picture is often obscured by the co-existence of other dis-

\*Read before the Maine Medical Association at Belgrade Lakes, June, 1928.

ease processes, such as rickets, tuberculosis and scurvy. As compared with tuberculosis, syphilis of the *joints* is comparatively rare in orthopedic clinics. On the other hand, luetic disease of *bones* is more common, because, as contrasted with tuberculosis, syphilis usually affects the diaphysis, and is a formative rather than a destructive process. Bone and joint syphilis should, of course, be considered as a complication of the general systemic infection.

#### ETIOLOGY

The etiology and mode of transmission of the disease is common knowledge, and need not be entered into here.

#### PATHOLOGY AND HISTOLOGY

Bone is different from all other tissues, in that it has abundant intercellular substance, in which lime salts are deposited. If the bone cells are killed, this calcified intercellular substance becomes immediately a foreign body which demands removal. At the same time, the adjoining periosteal and endosteal cells set about forming new bone to replace that destroyed. However, because of the length of time required for the removal of the old, necrotic bone, the new bone must be formed within or outside the old bone, not in its place.

Fibroblasts, being highly altruistic cells, may eventually form the type of cell which they have replaced, that is, mucous connective tissue cells, cartilage cells, or bone cells. In studying bone lesions it is helpful to bear in mind that bone cells and cartilage cells are

somewhat highly differentiated fibroblasts.

If a fibroblast has turned into a cartilage cell, it almost never or very rarely turns into a bone cell. Instead, the cartilage cell degenerates and disappears, and an adjoining fibroblast metamorphoses into a bone cell to take its place. This osteal cell sometimes assumes an intermediate form between the fibroblast and the bone cell, this form being known as the osteoblast.

The treponemes may affect the bone either in the medulla or the periosteum. The fibroblasts which proliferate in the process of repair tend to produce bone, because they are derived from osteal cells. The pathological result is sclerosis of bone within, and periosteal thickening without. These lesions may be further complicated by necrosis, due to obliteration of the blood vessels. This necrotic tissue must be softened and removed, the result being erosion of bone. Where necrosis has not occurred, new bone continues to form. This combination of erosion and new formation of bone is fairly characteristic of syphilis.

#### EARLY LESIONS OF CONGENITAL SYPHILIS

The lesions of bone in congenital syphilis are widespread, fairly constant, and characteristic. The following factors are governed by these congenital lesions:

(1) Delayed ossification, due to the fact that the treponemes develop readily along the line of ossification where the vascular supply is abundant.

(2) Increased connective tissue about

the blood vessels, causing tongue-shaped processes in the cartilage, which give a jagged appearance.

The most characteristic and constant lesion occurs along the line of ossification, thereby delaying the ossification process. Microscopically, instead of the normal sharp, narrow line of ossification, there exists a broad yellowish-white zone, which fades out on the diaphyseal side. The bone lesion peculiar to congenital syphilis is quite generally distributed throughout the body, but, as in rickets, is most marked where rapid growth is taking place, namely, at the lower end of the long bones.

#### THE LATER MANIFESTATIONS OF HEREDITARY SYPHILIS

##### SYPHILITIC OSTEOPERIOSTITIS

In this condition the synovial membrane is usually hypertrophied to such a degree as to interfere with movement. There is joint fluid increase, which may resemble synovial tuberculosis.

A slow, chronic, infiltrating, gummatous form may appear later in childhood, simulating the "white swelling" of tuberculosis, more common at the knee.

Joints may be involved before enlargement of neighboring bone is apparent, with symptoms of chronic synovitis.

##### BONE LESIONS OF ACQUIRED SYPHILIS

Bone lesions *may* occur in the secondary stage, but *do* occur more often in the tertiary. They seem to have no particular foci of predilection, but occur anywhere, in any bone, and in epiphysis or diaphysis. The simple in-

flammatory lesions are not so easily identified, unless spirochaetes are demonstrated microscopically or clinical history renders the diagnosis fairly obvious.

Tertiary lesions of bone seem to affect most commonly the skull, tibia, fingers, and other bones superficially located, and very often the shafts of the long bones are the sites of syphilitic periostitis with osteophyte production.

The most easily recognized and characteristic lesions of bone syphilis are the gummatous lesions which arise periosteally or in the interior of bone. In all these processes there is a simultaneous existence of rarefaction and condensation (or sclerosis) of bone. In this respect the syphilitic changes are in contrast to the tuberculous, where rarefaction is accompanied by little new bone formation.

Gummata formed in the marrow cavity are of frequent occurrence. They are gelatinous patches, which may occur singly or in such numbers and continuity as to involve the whole marrow cavity. Generally there is no outward evidence of their existence, but the cortex may be attacked and eroded, the periosteum producing a new layer of bone. In this way there may be a spindle-shaped dilatation of bone. Following this, fistulae may form in the cortex, and, except for the absence of sequestra, the bone comes to look like the result of an ordinary chronic osteomyelitis.

These, then, are the usual syphilitic affections of bone:

(a) Periosteal gumma formation

with necrosis of the underlying bone followed by ulceration and exposure through the skin, or by extensive osteophyte growth, and,

(*b*) Gummatous osteitis or osteomyelitis with necrosis and erosion of the directly affected part, and rarefaction or sclerosis of the surrounding bone.

#### SYMPTOMS AND PHYSICAL SIGNS

##### DIFFERENTIAL DIAGNOSIS

The question of differential diagnosis in syphilis, both congenital and acquired, centers about seven of the common types of bone disease, namely, tuberculosis, rickets, pyogenic bone disease, scurvy, malignancy, Perthes disease and arthritis.

It seems the wisest procedure to consider the differential diagnosis with relation to age period, for most of the lesions of congenital lues appear before the age of twenty, and the destructive bone processes of acquired syphilis are seen for the most part after the twenty-year period.

Dividing the first twenty years into three periods, the following incidence has been found to occur:

(1) One to three years—rickets, congenital lues and scurvy.

(2) Three to seven years—tuberculosis and non-tuberculous infections.

(3) Seven to twenty years—tuberculosis, pyogenic bone disease, Perthes disease.

The incidence and differential diagnosis with relation to the above is best shown in outline form:

#### FIRST AGE PERIOD—ONE TO THREE YEARS

##### *Rickets:*

- (1) Very young—in first two years.
- (2) Epiphyseal line softened and spread out.
- (3) Bone atrophy.
- (4) Absence of periostitis.
- (5) Deformities of bone.
- (6) No sub-periosteal hemorrhage.

##### *Lues:*

Multiple with periarticular swelling:

- (1) In first two years of life.
- (2) No spreading of epiphyseal line but gouged out areas in diaphysis; no saucer shape.
- (3) No atrophy.
- (4) Periostitis practically always present.
- (5) No deformities.
- (6) No sub-periosteal hemorrhages.

##### *Scurvy:*

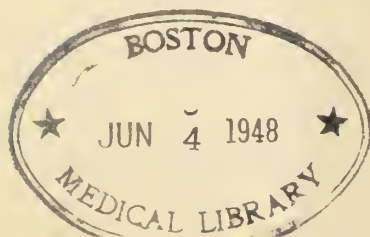
- (1) In first two years.
- (2) Destruction behind epiphyseal line.
- (3) Atrophy occasional.
- (4) Periostitis always.
- (5) Occasional tumor masses.
- (6) Sub-periosteal hemorrhage frequent.

##### *Summary:*

In rickets—changes are confined to the epiphyseal line.

Lues—epiphyseal line and bone behind is affected.

Scurvy—epiphyseal line is intact. All changes take place behind it.





## SECOND AGE PERIOD—THREE TO SEVEN YEARS

*Tuberculosis:* Usually one joint involved. There is bone and cartilage destruction and the articular surfaces are involved; pain, loss of function, atrophy, destruction of the ends of bones with seldom any new bone production, though there may be proliferation of fibrous tissue. If sinuses exist, there is secondary infection with bone production.

*Acute Epiphysitis* (non-tubercular): Usually one joint affected, swelling with fluid present. The focal spots of diseased bone are not connected with the primary infection of the joint. As the disease subsides new bone is produced, resulting in ankylosis. Where the cartilage is destroyed there is new bone formed.

## LAST OF SECOND AND THIRD AGE PERIOD

*Perthes Disease:* There is no hazing or clouding of the joint. Epiphysis softened and flattened, and with involvement of the hip there may be slight coxa vara. Apparently it confines itself to the epiphysis and does not involve the opposing articular surface.

*Arthritis:* Infectious.

*Luetic:* Shows marked periarticular swelling, thickening of synovial membrane with fluid in joint. Does not go on to cartilaginous destruction, consequently when disease subsides a normal joint occurs, but with associated bone change, a periostitis at the chondroperiosteal junction.

Periostitis, with periarticular swelling and fluid in the joint, is characteristic of lues, with no joint destruction.

*Charcot Joint:* In the adult, one of the commonest luetic lesions is the Charcot joint. This occurs in the tertiary, not the acute infectious stage, and is neuropathic in origin, occurring with changes in nervous system. The knee, hip, ankle and spine are most commonly affected. The usual site of infection is the knee, where the most striking change is destruction of the joint. The condyles of the femur are broken off, partially disintegrated, and pushed aside, so that lower end of the shaft of the femur rests on the tibia. The bones are softened, but dense, the joint much swollen, with fluid present. There is also a marked periosteal reaction, but no atrophy and no pain.

There are only two conditions existing which show disintegration of a joint without pain, the commonest of interest being syphilis, the other, syringomyelia.

The necessity for complete history, including family history, is of great importance. Inquiring into the early years of the patient may yield invaluable information, and indeed all but force the true diagnosis upon one.

The Wasserman or Kahn tests are absolutely essential, and this should be a routine procedure in any institution, no matter how small, and indeed in private practice. The procedure of taking blood is neither complicated nor time-consuming, and the information obtained may often be of inestimable value.

In suspicious cases with negative

Wassermann, mercurial inunctions and potassium iodide medication should be instituted, as such are harmless, and syphilis may exist even without serological evidence.

Also, syphilis may be a concomitant disease; for a child may have rickets and syphilis, tuberculosis and syphilis, or an adult may have tuberculosis and syphilis, or gonorrhea and syphilis.

Local signs of lues disappear rather rapidly under treatment.

Hereditary syphilitic processes are suggested by the history, confirmed by the Wasserman, and other evidences of the disease, most important of which, according to Whitman, is interstitial keratitis.

#### TREATMENT

The treatment of bone and joint syphilis must, of course, be considered first and foremost from the point of view of the general systemic infection. The hope of cessation of the disease process and the ultimate chance of cure lies entirely with the institution of intravenous therapy. This *general* treatment is the most important as far as the bone or joint condition goes, and the interest of the orthopedist is centered in preventing deformity and alleviating the local condition so far as is in his power, meanwhile spurring on the intravenous therapy, either by his own hand, or, preferably, by the hand of the syphilographer. In the case of destruction of joints, an attempt must be made to repair the joint—an almost hopeless procedure—or call to aid various mechanical appliances, such as casts, braces, etc., which will restore function

to as near normal as possible. A luetic osteomyelitis must be treated just as an osteomyelitis of pyogenic origin, together with the usual general, systemic treatment. Syphilitic periostitis usually clears up with only the use of intravenous and other general luetic treatment.

#### CONCLUSIONS

An attempt has been made in this allotted time to present a few points of pathology, symptomatology, and differential diagnosis of bone and joint syphilis, which might be of assistance, not only to the general practitioner, but to the specialist as well.

The diagnosis devolves upon the following factors:

(1) A painstaking, searching history.

(2) A thorough physical examination, with adequate and careful X-ray studies.

(3) Routine serological studies.

Even then the task is not easy. This only can be said, that we must grasp whatever diagnostic straws whirl by on the flood of possibilities, and clinging tenaciously to them, battle our way to what we hope will be a safe and undebatable haven.

One of the greatest physicians of our time was asked to what he attributed his success. He replied, "Work." When asked to what factor the correct diagnosis of bone and joint syphilis should be attributed, I shall paraphrase the above and reply, "Care"—*constant, searching, untiring care*. And after that a deliverance into the hands of Providence, with the hope that all will be well, remembering with satisfaction the tenet of our worthy mentor, Hippocrates, that "Diagnosis is difficult and judgment *may be* fallacious."

## THE HARD-OF-HEARING CHILD

By FREDERICK T. HILL, M. D., Waterville, Maine

The problem of the hard-of-hearing child is one of the most important, yet least generally appreciated, of those in the domain of Public Health. It is not one which concerns the otologist alone. The medical profession as a whole, and the public generally, should take a vital interest in it. It has an economic as well as a medical aspect, and is so linked with public school affairs that all who pay taxes are effected by it. In all matters pertaining to public health, the laity naturally look to the physicians in their respective communities for leadership. Therefore, it is the duty of the physician to acquaint himself with this problem, having, as it does, to do with the economic efficiency and earning power of our future citizens. The impairment of any of the special senses, whereby man makes his contacts with society and becomes an efficient self-supporting individual, constitutes an economic loss, both to the individual and to the community. Aside from humane considerations, it becomes good business judgment to prevent such loss if possible. When, because of such unrecognized impairment, there is bound to be a large waste of money expended on education in our public schools, it becomes increasingly important that the matter be given serious study. The hard-of-hearing child constitutes such a problem. And because modern medicine emphasizes the scientific study of disease causes and their prevention, the medical aspect of this problem should especially intrigue the interest of every conscientious physician.

First, let me differentiate between the hard-of-hearing child and the deaf child. The latter is not within the scope of this discussion. It presents an entirely different problem, largely educational, and depending for success upon institutional management. By the hard-of-hearing child we mean one whose hearing is not lost, but diminished to a varying degree, perhaps not at present apparent, and who is potentially deaf. It is with such as these that preventive measures may be of help.

In considering this problem it is first necessary that we rid ourselves of several delusions that we seem to have been laboring under. We must confess that science, in its present development, can offer practically nothing by way of cure in the case of already established deafness. When we encounter deafness, except for some temporary or acute form, we find ourselves helpless. Another delusion is that deafness is a disease entity. Rather it is a symptom, or a sequel, of some diseased condition, either local or general. Sometimes the cause may be quite remote from the ear. And lastly, we must face the fact that the present routine examination of our school children for hearing defects is practically worthless and a waste of time.

Of the 24,000,000 school children in this country, it is conservatively estimated that over 3,000,000 show hearing defects. This should have an alarming significance for us, especially when we realize that diminished hearing in childhood indicates the presence of conditions which, if not corrected,



will result in marked deafness later in life. Eighty per cent. of these cases can be prevented, or arrested, if recognized early enough and properly treated. The early detection and the removal of all possible causes then becomes a matter of the utmost importance.

Comparatively little attention has been paid to the matter of hearing defects among our school children. And yet, if the problem of deafness is to be combatted in a preventive way, here is where the work must be done. Routine surveys, if accurately performed, will disclose the early beginnings of deafness in time to institute measures, which will, in a large majority of cases, prove beneficial. In our public schools we have the children conveniently grouped for such study. Often defective hearing is not easily discovered. Frequently a person might have a considerable hearing loss and yet be unaware of it. It is usually less apparent than defective eyesight, and consequently has not received the same amount of attention. It is more difficult to examine the ear, and the older methods used in the schools have been inaccurate. For example, a unilateral deafness, except of marked degree, is seldom discovered.

Recently there has been an awakening to the seriousness of this problem. The credit for this must be given to the deaf people themselves, for they have led the way. The American Federation of Organizations for the Hard of Hearing, composed of deafened people in their various guilds, together with certain leading otologists, have undertaken the study of this problem. They have endeavored to learn just how much could be done for those children who

have impaired hearing. The results of this work may be found in a report on the hard-of-hearing child, issued by the Bureau of Education of the Department of the Interior, at Washington.

Through the efforts of Dr. Horace Newhart, President of the Federation, and others, the following resolution was presented to the delegates of the American Medical Association at the annual session in Dallas, in 1926.

"Recognizing the fact that the most effective means for the prevention of deafness consists in the early detection of hearing impairment, thereby giving opportunity for prompt removal of contributing causes, and believing it to be one of the most important functions of our public school authorities to safeguard the integrity of the special sense organs, as well as the general health of the school child, be it

*Resolved*, By the Section on Laryngology, Otology and Rhinology of the American Medical Association, that it heartily favors the provision by our public school authorities for regular periodic examinations of the hearing acuity of all public school children, such examinations to be adequate to detect even slight degrees of hearing loss; and be it further

*Resolved*, That this resolution be referred to the House of Delegates of the American Medical Association for its endorsement."

This was unanimously adopted, and has since been adopted by the American Otological Society, the American Laryngological, Rhinological and Otological Society, the American Academy of Ophthalmology and Oto-laryngology and other organizations. We hope to see such a resolution adopted by this society during this convention.



The Federation appointed a commission of leading scientists to study this problem of the hard-of-hearing child. Their task was threefold:

(1) To determine the best means of detecting impaired hearing in children.

(2) To ascertain the best means of giving such children medical treatment.

(3) To find out the best means of properly educating those children with defective hearing.

After a large amount of experimental work on the methods of determining hearing defects, the most important phase of the question, it soon became evident that some mechanical form of equipment would be essential. The old tests were satisfactory when carried out by trained otologists, but this was economically impossible. An otologist could examine perhaps four or five children accurately in an hour. The time element alone made some other method necessary. The following was considered as essential to a satisfactory method:

(1) Accuracy.

(2) Quickness.

(3) Technique likely to secure co-operation of the children.

(4) Apparatus which would be durable, not likely to get out of order.

The commission finally reported, "that the best method now available for testing the hearing of school children is by the phonograph audiometer (4-A). By its use 100 to 150 children can be accurately tested per hour." They considered this method economically sound and practical, and the expense small.

For the perfection of this method we are indebted to Dr. Harvey Fletcher, of the American Bell Telephone Laboratories. It consists of a phonograph

using special records of simple numbers and having a telephonic apparatus such that the numbers are conveyed through receivers to as many as 40 children at the same time. The ears are tested separately, the receivers being applied to the right ears and later to the left. When the record is started the children hear first from the phonograph, "You are going to have your hearing tested. Write the numbers which you hear in column (1)." The numbers gradually and uniformly decrease in intensity. The test is given twice by a woman's voice and twice by a man's voice. Three digit numbers are used for the upper grades; two digits for the lower. It is not practical to test below the third grade. The loss is measured in "sensation units." In the higher grades a loss of 6 units is significant, while with the younger children the limit would be 9. In any group tested, those showing this amount of loss are retested for possible error due to misunderstanding, or psychological causes. Those finally showing this loss are to be considered in the hard-of-hearing group.

Systematic surveys according to this method have been carried out all over the country. An average deafness of 25% was found in schools located in poor neighborhoods where there was a preponderance of foreign population, with poor living conditions, and little or no medical care. In schools where the children came from middle-class American families the deafness was about 10%, while in the more exclusive private schools, it was under 1%. A test survey made last fall in Waterville showed a hearing loss of 8.77%.

To be effective, this survey must be routinely carried out at least once every year. In this way, not only will new

pupils be tested, but any change in the ears of the old pupils will be noted. The possibility of the development of some diseased condition during the year must not be lost sight of. By this means the case which, through neglect on the part of the parents to follow the advice given, has failed to receive the proper attention, or through faulty treatment has not been benefited as it should, will be spotted and more effective measures taken to ensure good results.

All children showing a significant hearing loss should have a careful examination by a competent otologist. In this way about 80% can be improved, or at least arrested. Many cases will be simple, such as impacted cerumen, etc. Others will require careful management, treatment of diseased conditions, or surgery. The possibility of remote causes, such as sinus disease, nutritional disturbances, endocrine disorders, or congenital syphilis, must not be lost sight of. This phase of the problem might best be handled by having the school physician communicate with the child's parents, stating the condition found, and requesting that the child be taken to an otologist, or referred to the nearest available clinic. The teacher of the child should be notified of the nature and amount of the deficiency, and advised of such helpful measures as a front seat in class, special attention, etc. Some parents may neglect this matter, but follow-up letters and persistency on the part of the school authorities would eventually be effectual. In case of any doubt as to the ability, or even willingness of the child's parents to pay for the services necessary to alleviate the trouble disclosed, it would seem better to utilize the facilities of the free clinic, even if

apparently undeserved, rather than allow the child to suffer from the lack of interest, or appreciation on the part of the parents.

For a certain relatively small number of children, something in the nature of special educational facilities will be required. Out of 5,023 Chicago school children, only twelve were recommended for special teaching. Of course these figures will vary a great deal, but it should be evident that this would not prove too great a burden upon any one community. Only those who show the effect of deficient hearing in their school work will need this special instruction, and as soon as these children have become proficient in "speech reading," then they can go on with the ordinary methods of teaching, provided they are given certain aids as a seat near the teacher and in good light where they may see her lips. It is a great mistake to even think of putting these children in an institution for the deaf. Those who have some hearing defect, but have normal speech, should not be so institutionalized, for by so doing, they are apt to acquire the voice and enunciation of the wholly deaf child. When we realize that the most difficult thing in the education of the deaf is the teaching of intelligible speech to those who have never heard it, we can see how important it is that they should be educated in the environment of hearing children.

This problem may be met in several ways. In one city a teacher trained in "speech reading" is employed, going from school to school, giving instructions either individually, or to small groups. Usually this is given in periods of from thirty to forty-five minutes, and from once to four times a week. In this way the child continues with his regular

class, and the parents feel that he has not been marked as different and sent to a special school. It has been found that this method costs only \$129 a year per child, while the cost of educating him in a special school would be \$180. Here in Maine there would probably be few of these children needing special instruction in any one community. They might well be grouped in one school, and then several communities, such as those in a county, employ a special teacher, who would divide her time between the different towns. As it probably costs us about \$90 a year to educate a child in our schools, it will be seen that this would not entail much added expense.

This opens up a new field of work in teaching. The demand for trained instructors in "speech reading" is already increasing. To meet this the Federation, through a committee of experts, have worked out a course to train teachers for this purpose. Only those who have had three years' experience in teaching children will be accepted. This course will be given this summer in Cleveland. Details regarding this will be gladly furnished to any who may be qualified and interested to take up this work.

While at first glance this might seem to open up new ways of adding to the expense of our public schools, in reality it is quite the reverse. As I said before, this problem can be viewed from the economic, or business side, as well as from the humane. Nobody can deny the appeal of the latter; of these poor little handicapped children growing up to a future adult life with such serious affliction as will surely be theirs. Likewise it is hard to conceive of anyone doubting the wisdom of taking care of

these youngsters from the business point of view, if only given proper consideration. One of the greatest losses in the public school system is in the number of children who repeat their grades. This constitutes a waste of tax payers' money. It has been repeatedly shown that hard-of-hearing children are the worst offenders in this respect. They repeat their grades three and a half times oftener than normal hearing children. In one school 57 hard-of-hearing children repeated 66 classes, while 57 with normal hearing, picked at random, repeated only 18 classes. It is estimated that over a million children are obliged to repeat their grades each year. Without doubt a very large percentage of these failures are due to defective hearing. Considering the cost of this repeating to the tax payer, any money spent in detecting the hard-of-hearing, and treating and educating them, will be good investment. In one school in Rochester, 211 hard-of-hearing children repeated 441 times, at a cost of \$26,460. And this was based upon a per capita cost of \$60. In most of our own schools it is considerably higher.

The 4-A Audiometer for testing these children represents a cost of about \$550. While this may seem a large amount, it has been estimated that the per capita cost for testing actually is only 12 cents. Balance this against a cost of \$90 for repeating! No specially trained expert is required to carry on the work, and no added personnel is needed. The school nurse may well be utilized for this purpose. The children found deficient are reported to the school physician, and his office may notify the parents and see that the children are referred to the proper place for further examination, and the indicated treat-



ment, making use of the facilities already available. The same audiometer may be used for a whole county. An investment such as this, which will be in use for a long time, does not seem excessive. It will surely pay rich dividends, both in public moneys and in future citizens made more efficient.

We have attempted to make a beginning with this problem here in Kennebec County. Last winter a committee on the hard-of-hearing child was appointed by the County Medical Association. We have been endeavoring to interest the several school boards in various communities in this matter, and, while it has been slow and uphill work, we feel that we have made some progress. Already Augusta has voted to install a periodic survey for hearing defects, using the audiometric method. Through the courtesy of the Boston Speech Readers' Guild, we made a test survey of the Waterville schools, finding, as said before, a 8.77% hearing loss. We are still in hopes that their school board will see the light and install this system. We hope to interest the other communities in this problem before long.

In Portland splendid things have already been accomplished, due to the efforts of the deaf people themselves. The Portland Speech Readers' Club, through its President, Miss Persis Vose, one of the most energetic and earnest workers in the country, has purchased an audiometer and installed it in use in the Portland schools.

But these are only small beginnings. This is a problem worthy of the best

efforts of all good citizens. It should interest us especially as physicians. We all are not so situated that we can engage in the problems of research. Most of us must confine our activities to the clinical side. But we all can interest ourselves in practical preventive medicine in our own communities and lend our earnest support towards such measures as will ensure better health and increased efficiency for the coming generation. In this way we can begin to measure up to the high ideals of our profession and accomplish something for the good of humanity.

This is work that should be sponsored and guided by the medical profession. With the backing of this State Association, this can be brought to the attention of the whole state. I should like to see this Association pass a resolution similar to the one endorsed by the American Medical Association, and take up this work as a major activity. I should like to see a State Committee on the Hard-of-Hearing Child to direct the work, and each county association requested to form a like committee to function in its district. Let us interest our communities in this problem, and then, by some Legislative action, to establish a state-wide routine adequate system for the detection of hearing defects among our school children and the proper care of those found hard-of-hearing. By so doing, in one important respect, at least, we may assist in putting our state in the front rank of progress, that she may live up to her motto, "DIRIGO."

**MAINE MEDICAL ASSOCIATION**  
**Poland Spring House, June 17-19, 1929**

MONDAY, JUNE 17TH

- 9.00 A. M. Clinic at Central Maine General Hospital,  
Conducted by Dr. Edward Archibald, Montreal, and Hospital Staff  
8.00 P. M. House of Delegates, Poland Spring House

TUESDAY, JUNE 18TH

- 9.00 A. M. Opening Prayer.  
"Spinal Anæsthesia," Dr. William Anderson, Portland  
9.30 A. M. "Poor Surgical Risks," Dr. R. W. Wakefield, Bar Harbor  
10.00 A. M. "Appendicitis," Dr. H. M. Goodwin, Bangor  
10.30 A. M. "Surgical Aspects of Diabetes," Dr. L. S. McKittreck, Boston  
11.00 A. M. "Plastic Surgery of Chest Cases," Dr. Edward Archibald, Montreal  
12.00 M. Luncheon.  
1.30 P. M. President's Address, Dr. Frank Y. Gilbert, Portland  
2.00 P. M. Visiting Delegates.  
2.30 P. M. "Deep X-Ray Therapy," Dr. Langdon Thaxter, Portland  
3.00 P. M. "Some Clinical Consideration of Acute Appendicitis,"  
Dr. Frank H. Jackson, Houlton  
3.30 P. M. "Cancer of Colon and Rectum," Dr. E. H. Risley, Waterville  
4.00 P. M. "Treatment of Anemia," Dr. George Minot, Boston  
7.00 P. M. Banquet.  
Movie on Liberian Expedition of Harvard Medical School Department of Tropical Medicine, Dr. R. P. Strong, Boston

WEDNESDAY, JUNE 19TH

- 9.30 A. M. "Review of Twenty-five Years of Observation in Maine in the Tuberculosis Field," Dr. Estes Nichols, Portland  
10.00 A. M. "Asthma Report on Clinical Work in Maine During the Last Eight Years," Dr. C. B. Sylvester, Portland  
10.30 A. M. Lantern Slide Demonstration of "Pathologic Conditions of the Lungs and Plura Revealed by X-Ray Examination,"  
Dr. J. P. Goodrich, Waterville  
11.00 A. M. "Primary Cancer of the Lung and Bronchus,"  
Dr. Channing Frothingham, Boston  
12.00 M. Luncheon.  
1.30 P. M. "Chronic Arthritis," Dr. T. O. Vanamee, Portland  
2.00 P. M. "Causes of Arthritis," Dr. Robert Osgood, Boston  
2.30 P. M. Cancer Movies, Conducted by Dr. Mortimer Warren, Portland

**NOTE****Seventh New England Health  
Institute****Hartford, Conn., April 22-26, 1929****GENERAL INFORMATION**

The New England Health Institute will be held at Hartford, Conn., the entire week of April 22-26, 1929.

The Headquarters of the Institute and all lectures will be at Hotel Bond, 320 Asylum Street, Hartford.

Registration will be at Hotel Bond, beginning Monday morning, April 22nd, at 10.00 o'clock, and will continue through the week.

A fee of \$1.00 will be charged to cover routine Institute expenses.

First lectures will begin at 2.00 P.M., Monday afternoon.

Three lectures will be given simultaneously each hour, nine each morning from 9.30 to 12.30, and nine each afternoon from 2.00 to 5.00. Signals will be given five minutes before each hour, so that each lecture will close promptly and the next lecture begin on time.

People attending the Institute are encouraged to attend as many lectures as possible. Those who faithfully attend eighteen or more lectures during the week will be presented with a certificate of attendance.

Lectures are open to all those who are interested in public health or actively engaged in the work.

On the evening of Tuesday, April 23rd, a dinner for the Faculty of the Institute will be held at Hotel Bond. A minimum charge will be made for this event. This will be the high spot in the Institute program, as it will mark the fiftieth anniversary of the Connecticut State Department of Health.

Health movies will be shown daily from 5.00 to 6.00.

**SCHEDULE OF COURSES**

- I. Public Health Administration  
C. E. A. Winslow, D. P. H., Chairman
- II. Preventable Diseases  
M. J. Rosenau, M. D., Chairman
- III. Sanitary Engineering  
James A. Newlands, B. S., Chairman
- IV. Tuberculosis  
Stephen J. Maher, M. D., Chairman
- V. Venereal Diseases  
Thomas Parran, Jr., M.D., Chairman
- VI. Child Hygiene  
S. J. Crumbine, M. D., Chairman
- VII. Public Health Nursing  
Annie W. Goodrich, Sc.D., Chairman
- VIII. Laboratory  
Benjamin White, Ph. D., Chairman
- IX. Mental Hygiene  
Roy L. Leak, M. D., Chairman
- X. Industrial Hygiene  
Philip Drinker, B. S., Chairman
- XI. Foods and Food Control  
Hermann C. Lytlgoe, B.S., Chairman
- XII. Nutrition  
Lafayette B. Mendel, Ph.D., Chairman
- XIII. Vital Statistics  
Timothy F. Murphy, Ph.D., Chairman
- XIV. Health Education  
Clair E. Turner, D. P. H., Chairman

**NEW AND NON-OFFICIAL  
REMEDIES**

The following articles have been accepted by the Council on Pharmacy and Chemistry:

Haley M-O Co.:

Magnesia-Mineral Oil (25) Haley.

Parke, Davis & Co.:

Tetanus-Perfringens Antitoxin, Refined and Concentrated.

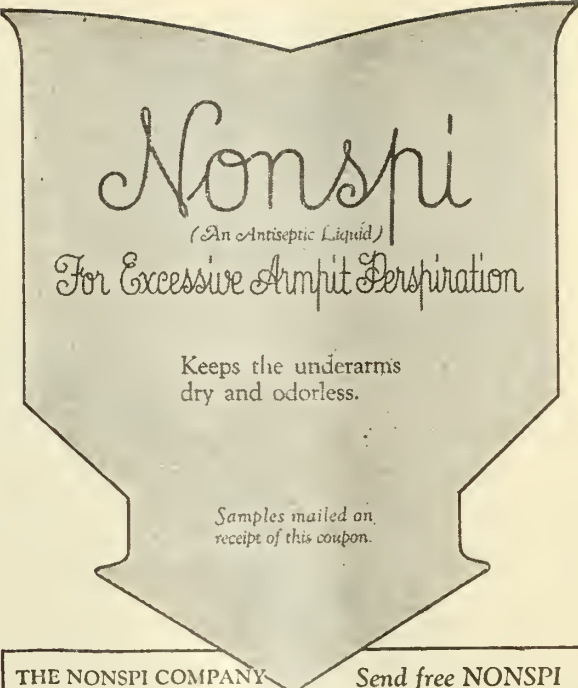
E. R. Squibb & Sons:

Dandelion Pollen Allergen Solution  
—Squibb; English.

Plantain Pollen Allergen Solution  
—Squibb; Goldenrod.



Pollen Allergen Solution—Squibb;  
Perennial Rye Grass.  
Pollen Allergen Solution—Squibb;  
Ragweed (Dwarf).  
Pollen Allergen Solution—Squibb;  
Ragweed (Giant).  
Pollen Allergen Solution—Squibb;  
Red Top.  
Pollen Allergen Solution—Squibb;  
Russian Thistle.  
Pollen Allergen Solution—Squibb;  
Sunflower.  
Pollen Allergen Solution—Squibb;  
Bermuda Grass.  
Pollen Allergen Solution—Squibb,  
5 cc.; June Grass.  
Pollen Allergen Solution—Squibb, 5  
cc.; Mugwort.  
Pollen Allergen Solution—Squibb, 5  
cc.; Orchard Grass.  
Pollen Allergen Solution—Squibb, 5  
cc.; Sagebrush.  
Pollen Allergen Solution—Squibb, 5  
cc.; Western Ragweed.  
Pollen Allergen Solution—Squibb, 5  
cc.



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# THE JOURNAL

OF THE

## Maine Medical Association

Published under direction of the Council of the Maine Medical Association

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All papers, case reports, etc., should be typewritten when possible.

Proof-sheets will be sent to the author when requested.

Communicate with the printer early regarding reprints, as the best rates can be had during time that the paper is on the press for the Journal.

The Journal assumes no responsibility for opinions expressed by the authors.

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MAY, 1929

No. 5

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### COMMITTEE REPORTS

#### MAINE MEDICAL ASSOCIATION

##### SECRETARY'S REPORT

Your Secretary has the pleasure to submit his twelfth annual report. The work of this office has consistently grown in volume from year to year and should continue to do so. The work in the various trades and professions, and even the simple act of living, has become more complicated.

Together with the high cost of living, the cost of medical care has continued to soar. During the last twenty-five years ward rates in our hospitals have increased from one dollar to three and four dollars; private rooms from two to three dollars to five to ten dollars a day. The cost of nursing has increased from eighteen dollars for twenty-four hour duty, to forty to sixty dollars a week, oftentimes for but eight to twelve hours' work. At the present time, only the very rich and the very poor can afford adequate medical care. So acute has the problem become that a mixed national committee has been appointed, consisting of physicians with other prominent scientists and laymen, to

make a five-year study of the subject and suggest a solution.

During this time, notwithstanding the fourfold increase in cost for a medical education and the doubling of the time required, including hospital training, the fees and the incomes of the profession have been but moderately increased. On an average, office calls formerly one dollar are now two; village house calls formerly two, now three, confinements from ten to twenty-five. The average cost of surgery has but slightly increased. The standard price of a major operation is still one hundred dollars. The man getting the enormous fees we hear so much about is decidedly in the minority, and on the whole the medical profession is certainly underpaid when we consider the standard of living they are obliged to maintain. There is bound to be a change in the status of the medical profession during the next few years. The independent general practitioner and family physician is fast disappearing. He may have outlived his usefulness. People



are beginning to shop for their medical care at the larger centers or are experimenting with the newer fads and fancies of pseudo medicine.

To meet the demand of those of small salary, and wage earners, already in the large centers pay clinics have been established where these people of moderate means, by the payment of a small fee, can receive more thorough physical examinations, with the use of laboratory and X-ray findings, under the supervision of hospital physicians. Physicians are asked to send their patients to these clinics for examination, with the understanding that they be referred back to the physician for treatment.

Wealthy men have established foundations, the funds to be devoted to medical and health work. Most of these are under the direction of laymen who are carrying out health experiments and programs in different parts of the country, oftentimes with little coöperation with the local profession.

So it is time that more thought be given to the future of our profession, that we should get away at times from the scientific interests and think more of the social and economic problems. More of our meetings should be given over to the discussion of these things and the best men obtained to look after our interests.

#### FULL-TIME SECRETARY

At the last annual meeting, the House of Delegates voted to refer to the component county societies the feasibility of raising the state dues to enable the Council to employ the services of a full-time Secretary. This is a very important step and should be well considered. At this writing, several counties have voted in favor and none have opposed.

If this should carry at this meeting, it would be at least six months or a year before the income would be sufficient to put it into effect. We earnestly hope that every county society will have considered this vital matter and have instructed their delegates.

#### MISCELLANEOUS

The two regular meetings of the Officers and County Secretaries were held, one in Augusta, followed by a union meeting with the Kennebec County Society, the second in Portland. The chief topics discussed were the two bills before the Legislature, the Basic Science and Osteopathic Bills. It was voted to leave the management of these entirely in the hands of the Legislative Committee.

Beside their presence at these two meetings, the Council held a third meeting at Augusta in May, to prepare the work for the annual meeting.

Three thousand dollars were invested in bonds, making a total of invested securities of nine thousand dollars.

A complete report of the Treasurer will be presented to the House of Delegates.

#### BIOGRAPHICAL RECORD

For a long time it has seemed necessary that there should be in this office the facts for a fuller biographical account of every member of the Association than we have at present. At an earlier meeting of the Council the Secretary was authorized to obtain this information. Accordingly cards are being sent to each member, with the request that they be filled out at once and returned in an enclosed addressed and stamped envelope. These cards will be filed and will be kept up to date as

added information comes to the notice of the Secretary. We are asking for your coöperation in making this index worth while, as we are constantly being asked for information concerning members from various official bureaus, which we have heretofore been able to furnish with difficulty.

#### CONSTITUTION AND BY-LAWS FOR COUNTY SOCIETIES

At the last annual meeting a new constitution, with by-laws, was adopted by the State Association and are now in force. These were rewritten from a form drawn up by a committee of the A. M. A. and so adapted to conform to our needs. In order to have a better working organization throughout the state, it now seems necessary to complete this work by having uniform constitutions and by-laws for the component county societies which will be in conformity with that of the State Association. Accordingly, your Secretary has drawn up such a model, which, perhaps with a few minor changes to suit local conditions, can be used by all the county societies. The first form of this was submitted to the Secretary of the A. M. A. and his suggestions are incorporated in the final draft which is submitted below. Reprints will be made and can be obtained from the Secretary when needed.

BERTRAND L. BRYANT, M. D.,  
*Secretary.*

#### CONSTITUTION AND BY-LAWS OF COUNTY MEDICAL SOCIETY

##### CONSTITUTION

##### *Article I—Name of the Society*

The name and title of this organization

shall be the ..... County  
Medical Society.

##### *Article II—Purpose*

The purposes of this Society are to promote the science and art of medicine, the protection of public health, and the betterment of the medical profession; and to unite with similar county organizations to form the Maine Medical Association and the American Medical Association.

##### *Article III—Composition of the Society*

Section 1. The Society shall consist of members who shall be licensed physicians of good standing, residing in this county, whose dues and assessments for the current year have been received by the Secretary.

Section 2. Any member of good standing who has completed fifty years of active practice, by a majority vote of the Society, may become an honorary member without further payment of dues and without loss of any of his former privileges.

##### *Article IV—Council*

The Council will be the executive board of this Society. It shall consist of the Councilors, the President and Vice-President, and the Secretary-Treasurer of the Society. Four of its members shall constitute a quorum.

##### *Article V—Sessions and Meetings*

Section 1. The Society shall hold an annual session which shall be open to all registered members, delegates and guests, and such regular meetings as may be necessary and feasible.

Section 2. The time and place for holding each annual session shall be fixed by the Council.

Section 3. Special meetings of the Society may be called by the President or upon the petition of ten members.

##### *Article VI—Officers*

Section 1. The officers of the Society shall be a President, a Vice-President, a Secretary-Treasurer and three Councilors.

Section 2. The officers except the Councilors shall be elected annually. The terms of the Councilors shall be three years, one being elected each year. All these officers

shall serve until their successors are elected and installed.

#### *Article VII—Funds and Expenses*

Funds shall be raised by an equal assessment on each member for the expenses of the Society and the dues to the State Association. The amount per capita, determined at the annual meeting, shall be the membership dues. These assessments shall be due on January 1st of each year, to be paid to the Secretary-Treasurer, who shall keep account of same and forward to the Secretary-Treasurer of the State Association that part of the assessment for the State Association on or before April 1st of the same year. The books of the Secretary-Treasurer shall be audited by the Council.

#### *Article VIII—Amendments*

This constitution may be amended at any annual meeting by a two-thirds vote of those members present, provided that such an amendment shall have been presented at an open meeting or a copy sent to each member or published in the JOURNAL of the State Association one month before the annual meeting in which it is to come up for enactment.

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### BY-LAWS

#### CHAPTER I

##### *Membership*

Section 1. Any licensed practitioner of medicine residing in ..... county may apply for membership in this Society by filling out the necessary application form, giving his name and address, the name of the school of medicine from which he graduated, date of graduation and the date of his license in this state to practice. This application must be signed by two members of good standing in the Society. This application may be presented at any regular meeting to be referred to the Councilors for investigation, who shall report at the same or the next regular meeting. Members shall be elected by ballot and the majority of the votes cast shall be necessary for election. Full membership shall be completed upon payment of the dues to the Secretary-Treasurer.

Section 2. A physician residing in a county where there is no organized county society may apply for and be elected to membership in that county society most convenient to his or her place of residence.

Section 3. No member shall be considered in good standing whose dues have not been paid before April 1st of the current year. If they remain unpaid at the end of that year the name of the member shall be dropped from the roster of the Society.

Section 4. Any suspended member may be re-instated by a vote of the Society, upon recommendation of the Secretary-Treasurer that all his indebtedness to the Society has been paid.

Section 5. Any member of good standing changing his residence to another county in this state may ask and receive from the Secretary-Treasurer a certificate of transfer to that Society in the county where he takes up his residence. The Society receiving this certificate may act upon it on receipt or may refer it to their Council, to be acted upon in the usual manner of new members.

Section 6. If any member so conducts himself that for the good of the Society an investigation of his acts seems necessary, charges may be preferred against this member, either oral or in writing, to the Council. The Council, acting as a Board of Censors, together with the State Councilor, shall set a date of hearing and summon the member to appear before them to answer to these charges, and present their findings at the next regular meeting of the Society, with their recommendations for acquittal, censoring suspension or expulsion. These recommendations shall then be voted upon by the Society. A two-thirds vote of those present shall be necessary to support or reject the recommendations.

Section 7. An appeal may be taken to the Council of the State Association, whose decision will be final.

#### CHAPTER II

##### *General Meetings*

Beside the annual meeting, general meetings shall be held at such time and place as the members of the Council shall decide. The Secretary-Treasurer shall have charge



of the arrangement of the programs, and shall notify all the members of the time and place. Notices shall also be sent to the District Councilor, the President and the Secretary of the State Association.

#### CHAPTER III

##### *Delegates to State Association*

Each County Society shall be entitled to send each year one delegate or one corresponding alternate to the House of Delegates for each twenty-five (25) full paid members or fraction thereof; provided, however, that each County Society shall be entitled to at least one delegate or one corresponding alternate. Delegates and alternates shall be elected for a term of two years. When entitled to more than one delegate, as equal a proportion as possible should be elected on alternate years.

#### CHAPTER IV

##### *Election of Officers*

Section 1. At the annual meeting or a previous regular meeting, the President shall appoint a committee on nominations consisting of from three to five members. This committee shall nominate and report to the members a ticket, one member for each office to be filled at that annual session, including members of standing committees and delegates. Additional nominations may be made to this ticket from the floor by any member of the Society.

Section 2. All election of officers shall be by ballot and the majority of votes cast be necessary to elect.

#### CHAPTER V

##### *Duties of Officers*

Section 1. The President shall preside at all meetings of the Society and shall appoint all committees not otherwise provided for. He shall deliver an annual address at such time as may be arranged and shall perform such other duties as custom may require.

Section 2. The Vice-President shall act for the President in his absence or disability. If the office of the President should become vacant, the Vice-President shall succeed to the Presidency.

Section 3. The Secretary-Treasurer, as Secretary, shall attend all the meetings of the Society and shall keep records of their respective proceedings. He shall be custodian of all record books and papers belonging to the Society. He shall arrange and provide programs for all meetings. After each meeting he shall send to the Secretary of the State Association a report containing the names of new members and the names of those dropped from the roll and the reason for their removal. He shall conduct the official correspondence, notifying members of meetings, officers of election, and committees of their appointment and duties. His salary shall be fixed by the Council.

Section 4. As Treasurer, he shall demand and receive all funds due the Society. He shall pay money out of the treasury only with the consent of the Council. He shall collect all assessments due the State Association and shall send them, together with the roster of his Society, to the State Secretary on or before April 1st of each year. He shall annually render an account of his doings and of the state of funds in his hands to the Society, and submit his books to be audited by the Council.

Section 5. The Council shall be the executive committee of the Society. It shall act as its Board of Censors. It shall have charge of all finances and shall audit the books of the Secretary-Treasurer and shall perform all duties of an executive committee not otherwise provided for in these By-Laws.

#### CHAPTER VI

##### *Committees*

##### Committee of Public Relations

##### Auxiliary Committee of Legislation

Section 1. The Committee of Public Relations shall consist of three members and shall have charge of all matters arising between the general public and the physicians. It shall be the advisory committee for all health organizations doing work in this county. It shall investigate matters affecting the economic status of physicians and coöperate in every way with the same committee of the State Association.

Section 2. The Auxiliary Committee of

Legislation. Each County Society shall appoint or elect one of its members as a member of the Auxiliary Committee of Legislation and shall send his name at once to the Secretary of the State Association. The auxiliary committeemen shall be accountable to their County Societies and to the Council for prompt response to and continued coöperation with the Committee on Legislation of the State Association.

#### CHAPTER VII

##### *Dues and Assessments*

The annual dues and assessments of the Society shall be determined by the Council and shall be levied per capita on the members of the Society. They shall be payable on or before January 1st. Any member not paying his dues before April 1st shall be held suspended. If not paid before the annual meeting he shall be dropped from the roll.

#### CHAPTER VIII

The ethical principles governing the members of the American Medical Association shall govern members of this Society.

#### CHAPTER IX

The deliberations of this Society shall be conducted in accordance with parliamentary usage as defined in Robert's Rules of Order.

#### CHAPTER X

Section 1. These By-Laws may be amended at any regular meeting by a majority vote of the members present, if the proposed amendment has been properly submitted to the Society at a previous meeting and laid on the table until the next meeting.

Section 2. On the adoption of this Constitution and these By-Laws all previous Constitutions and By-Laws are hereby repealed.

### REPORT OF COUNCILOR — FIRST DISTRICT

As Councilor for the First District of the Maine Medical Association, I have the pleasure and honor to submit herewith my report for the year 1928-1929.

My territory comprises York and

Cumberland Counties, in both of which are live County Secretaries. Meetings in both counties have been worth while and well attended. However, their success has been due not alone to the indefatigable efforts and efficiency of Jones, in York County and Cummings, in Cumberland County, but also to an awakening, on the part of most members, to the real peril that attaches to isolating oneself in the practice of medicine. In my district, too, men are appreciating more than ever the need of coöperating with their secretaries if programs of merit are to be arranged.

In Cumberland County a clinic always precedes the evening meeting of the society, and in York County a beginning was made in that direction by holding a clinic at the beautiful Sanford hospital in conjunction with the regular April meeting.

Both societies are looking forward to an active and useful new year.

Respectfully submitted,

E. W. GEHRING, M. D.,

*Councilor.*

### REPORT OF COUNCILOR — SECOND DISTRICT

I, as Councilor of the Second District, submit my report.

I have visited the component societies. Franklin County Society has had its usual number of meetings, maintaining their standard, as has Oxford County Society, both in their personnel and their interest. Androscoggin County Society has increased its influence. There was a joint meeting with the Androscoggin Bar Association, also a joint meeting with the Androscoggin Dental Society. These joint meetings

re-established the understanding and relationship between the members of the societies.

Yours truly,  
JOHN STURGIS, M. D.,  
*Councilor.*

#### REPORT OF COUNCILOR— THIRD DISTRICT

In reporting as Councilor for the Third District, I will say that as far as I know the societies of Sagadahoc and Knox are in their usual satisfactory condition. The writer has telephoned twice to the Secretary of the Knox County Society, asking for dates of their meetings, and has received no information as to dates, so no visit has been made in person.

It should not be passed unnoticed that the Knox County and the State Association have suffered an irreparable loss in the death of Dr. Spear, of Rockland.

Sagadahoc has had the usual meetings of interest and they have acted upon the matter of a full-time Secretary for the State Association in the affirmative.

Very truly yours,  
W. E. KERSHNER,  
*Councilor.*

#### REPORT OF COUNCILOR— FOURTH DISTRICT

The Fourth District has had a very successful year. Kennebec County has had more and better meetings than ever before in its history.

Somerset County had a joint meeting with Kennebec and Franklin, with guests from other counties, at Lakewood.

In general, medical legislation has been a source of interest as well as the cause of much irritation. We are keenly interested in the proposition of a full-time Secretary and believe that in such a person many misunderstandings may be successfully handled.

See you all in June.

GEO. E. YOUNG,  
*Councilor.*

#### REPORT OF COUNCILOR— FIFTH DISTRICT

As your Councilor for the Fifth District, I herewith submit the following report:

##### WASHINGTON COUNTY

The Washington County Medical Society has enjoyed a prosperous year.

In May, there was a meeting in Eastport, and in June a large meeting at St. Andrews, N. B. Both meetings were well attended and addressed by able men.

The October meeting was not held on account of bad weather.

The membership remains the same; one member lost by death and one gained by election.

##### HANCOCK COUNTY

The Hancock County Medical Society has held its usual number of meetings this year, all well attended and enthusiastic.

The meetings during the summer months are especially interesting, because they are addressed by men of national reputation, and we have as guests many visitors from other states.

The membership remains the same.

RALPH W. WAKEFIELD,  
*Councilor.*



### REPORT OF COUNCILOR — SIXTH DISTRICT

As Councilor for the Sixth District, I report as follows:

The Penobscot County Association during the past year has inaugurated the custom of holding clinics each month in conjunction with the regular monthly meetings. The clinics are held at the Eastern Maine General and are conducted by the speaker of the meeting, who is usually some one from Boston. The custom is very successful and popular.

At the last meeting of the Penobscot Association it was voted to go on record as favoring the employment of a full-time Secretary by the Maine Medical Association, and the raising of dues to the Maine Medical Association to ten dollars.

I expect to visit the Aroostook Association at their semi-annual meeting this spring.

Sincerely yours,  
J. L. JOHNSON, M. D.,  
*Councilor.*

### REPORT OF HOSPITAL COMMITTEE

In order to make the report of the Hospital Committee comprehensive, letters have been sent to secretaries of all county societies, and a few others particularly interested in hospitalization, requesting information on hospitals in their respective counties. From the reports, there seems to be an increasing demand for better hospitalization and a definite inference that a larger percentage of persons treated in the state are being referred to various institutions where more detailed study can be car-

ried out. Those hospitals which maintain a free service are attempting to keep the patient's own physician informed as to data obtained and treatment instituted. On discharge, it is the intention of such institutions to refer the patient back to the family physician with a statement of all information obtained. We feel that this is a very important function of hospitals in any community, and its careful observance will do much to overcome the feeling that patients once sent to hospitals are taken away from the care of the family physician.

Since the last meeting of the society, one hospital of fifty beds has been opened, another of fifty beds is about to be opened, and many additions and improvements have been made in older institutions.

The Henrietta D. Goodall Hospital was opened in Sanford, Maine, August 14th, 1928. It is a memorial to Henrietta D. and George B. Goodall and built by their daughter, Mrs. William H. Marland. It is a general hospital with fifty beds, with twenty-three single rooms, nineteen ward beds in two and three bed units and eight bassinets. There are two operating rooms, accident room, delivery room, X-ray unit, diathermy and ultra violet apparatus and a modern laboratory. It has an open staff for private patients and a rotating staff for ward patients. It has a training school for nurses. There is a nurses' home accommodating twenty-five, all in single rooms, with library, recreation and class room. Twenty-eight doctors comprise the general staff of the hospital and there are twenty-one consultants.

The Franklin County Memorial Hos-

pital will probably be opened before the meeting of this society. It is being built by money secured through the Commonwealth Fund of New York and private subscriptions throughout Franklin County Hospital district. It has a staff open to all regular physicians of good standing. It will accommodate fifty patients and has several four bed and two bed wards. The Commonwealth Fund offers post-graduate courses to doctors within the Hospital District, not over five a year. Post-graduate courses anywhere within reason up to four months. They pay tuition, traveling expenses and reasonable amount of living expenses for the whole time. There are three men this year—Dr. Harold Pratt, Livermore Falls, taking a course at post-graduate in New York; Dr. Makepeace at Harvard Graduate School; Dr. A. E. Floyd, of New Sharon, at Albany. Drs. Makepeace and Floyd are both taking medical courses principally; Dr. Pratt, surgical course.

The Waldo County General is completing the erection of a new wing, which will include a new maternity department, baby room, operating room, sterilizing room, doctors' wash-up room, emergency room, four private rooms, bath room and sun parlor.

The directors of the Maine General Hospital have been very fortunate in securing the services of Doctor Warren P. Morrill, a man of large experience in hospital organization, as director of the institution. Plans for the new private pavilion of the Maine General Hospital have been approved and contract let for the work, which it is expected will be under way by July 1st, 1929. The plans show a seven story building, facing Arsenal Street, just north of the

present building. The first floor, at ground level, is to be left unfinished for the present, for future clinical uses, the plans for which are not yet complete. The second to fifth floors, inclusive, will contain seventy-one private rooms, all fitted with running water, telephone, radio, modern call system, etc., those on the fifth floor having private baths, in addition. The sixth floor will provide six operating rooms, three general and one each for eye, ear, nose and throat, cystoscopy, and orthopedies, with such accessories, surgeon rooms, sterilizing rooms, etc., as are necessary. The seventh floor will contain delivery rooms, obstetric operating room, labor rooms, and in addition two surgical recovery wards to avoid the necessity of sending surgical patients directly back to their rooms before they have thoroughly recovered from the anesthetic.

From Penobscot County comes an appeal for adequate hospitalization of incurables. There is no place in this state where the chronic and incurable patient of the pauper status can get adequate medical treatment, except for the few places like Portland and Bangor, where there are hospital facilities run in connection with the almshouse. Would the Maine Medical Association approve of the establishment of a state infirmary based on the same principle as the State Infirmary at Tewksbury, Mass.?

The 84th Legislature of the State of Maine has recently passed an act relative to appropriations to public and private hospitals. It is known as the Mitchell Hospital Bill, from Doctor Frederick W. Mitchell, of Houlton, who sponsored it. The bill appropriated \$160,000 per year to be allocated to hospitals according to the amount of actual charity work. The appropriation is

taken out of politics, and will be supervised by an inspector from the State Department of Public Welfare. This is a progressive measure and puts the matter on a business basis. The rate shall not exceed two dollars and fifty cents per day per patient in addition to necessary emergency charges. Three per cent. of the appropriation or \$1,800 is allowed for purposes of administration. Whether this amount will prove adequate for the investigation necessary for the equitable division of the appropriated sum is yet to be determined.

CARL M. ROBINSON, M. D., Chmn.,

Portland, Me.,

G. H. STONE, M. D., Bangor, Me.,

E. H. RISLEY, M. D., Waterville, Me.,

*Hospital Committee.*

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## REPORT OF COMMITTEE ON PUBLIC RELATIONS

The Committee on Public Relations held two meetings during the past year in conjunction with the Secretaries' meeting at Bangor and Portland.

As most of the work that would naturally fall to this committee was assumed by the Legislative Committee, the Public Relations Committee has nothing to report.

In behalf of the Committee,

F. W. MANN, M. D.,

*Chairman.*

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## REPORT OF LEGISLATIVE COMMITTEE

Your Legislative Committee herewith presents its report for the year.

At the annual meeting held in Bel-

grade, it appeared to be the majority opinion that the report of the Special Committee, creating a joint board with three regular physicians and three osteopaths, be accepted.

Certain members of the association, after due consideration, felt that a complete separation of the boards would be preferable, and after consultation with the different county units it appeared to be the unanimous opinion that the State Boards remain as at present constituted; and at a meeting of the President, Councilors, Secretaries and other officers of the society held in Augusta in December, 1928, it was so voted, and at the same meeting it was also voted not to interfere with any legislation sponsored by the osteopaths during the 84th legislative session.

A Basie Science Bill, however, was drawn up to be considered at the next legislative session, not especially a medical society measure, nor to be sponsored at the hearings by the members of our society, but to be considered as an educational measure. This was presented at a hearing before the Judiciary Committee by the able Senator from Penobscot, Senator Crosby, but lacking the fundamentals of an egg-laying contest or a bounty on bears, it was adversely reported by the committee.

A bill appropriating \$160,000 per year, the so-called Mitchell Hospital Bill, placing the state charity appropriations to hospitals on an equitable and business basis, became a law. This bill provides for a flat rate of \$2.50 per day for actual charity cases, not town or state paupers. An inspector, appointed by the State Department of Public Welfare, will pass on the several bills, and through its equalizing feature should



make our appropriations to hospitals much more satisfactory than the present arrangement.

The Osteopathic Bill, permitting the practice of surgery and obstetrics, but without permission to use any of our existing hospitals, also became a law.

It is the opinion of your committee that, although the passage of such legislation may appear like a lowering of standards, or perhaps a further encroachment of an imaginary enemy, the results will be a stimulation to better service on the part of our profession, and that competition can only make us conscious of those superior advantages which science has bequeathed us, and in the end make for more competent and better qualified physicians.

Respectfully submitted,

F. W. MITCHELL, M. D.,

J. D. PHILLIPS, M. D.,

E. D. MERRILL, M. D.,

*Legislative Committee.*

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#### REPORT OF COMMITTEE ON VENEREAL DISEASES

A copy of the new pamphlet "From Boy to Man" having been sent to each member of the Association, together with a letter in relation to its preparation and plans for its distribution, it remains to report that about 9,000 of these will be on the way to distribution in the early autumn through the medium of the high schools. The chairman of this committee plans to do this, to a great extent, personally, and to initiate if possible a method of work which has been suggested in a letter of approval of the pamphlet.

This suggestion is, that within a few weeks after the distribution to the par-

ents of a town or city through the pupils, and after time has elapsed for consideration of the pamphlet, the coöperation of the principal of the school and one or more local physicians be arranged for to have a round table discussion of the pamphlet and its problems, giving the boys opportunity for asking questions.

The chairman plans, also, to continue lecture work in the high schools to both sexes separately.

About 10,000 more of these pamphlets will be required to fill in all the high schools, to purchase which, with envelopes, and prepare with an accompanying letter, will call for \$100, in addition to the balance to the credit of the committee now in the hands of the treasurer.

The cost of the preparation and printing of the first 10,000 was \$348, this price being possible through the coöperation of the American Social Hygiene Association with the committee.

It is our belief that the name of this committee should be changed to The Committee on Social Hygiene.

GEORGE H. COOMBS, M. D.,

HARRISON J. HUNT, M. D.,

HAROLD W. STANWOOD, M. D.,

*Committee on Venereal Diseases.*

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#### REPORT OF THE CANCER COMMITTEE

We have directed our efforts this year toward closer coöperation with the constituted health agencies of the state, the State Department of Health and the Maine Public Health Association. We have found the officials of these organizations very willing to be of any possible assistance. By this means, we are able to use channels already established for the distribution of literature to obtain

local statistical data, and have the services of a member of the State Department as a speaker who furnishes a lantern for showing films. None of this sort of work would be possible without this aid, nor without the literature and various exhibits furnished by the American Society for the Control of Cancer. We have shown their film, "The Reward of Courage," on three occasions, and are to have the Canti film showing the effect of radium on cancer cells for the June meeting of the Maine Medical Association. The Maine Public Health Association is arranging for Cancer Clinics in connection with their regular clinics on pulmonary and cardiac conditions.

We believe the subject of cancer should come up at the regular meetings of the county societies at least once a year. A symposium on this subject, conducted by local physicians, was successfully carried out by the Cumberland County Medical Society at one of its meetings this past winter.

Respectfully submitted,  
MORTIMER WARREN, M. D.,  
H. E. THOMPSON, M. D.,  
BARBARA HUNT, M. D.,  
*Cancer Committee.*

## REPORT OF THE NECROLOGIST 1928-1929

We have lost fewer members than usual in the year since we met, but the deaths have been more sudden than before. Heart disease, as elsewhere, noted in the profession, has been a common cause.

Our deceased members are as follows: Daniel Alden Barrell, Auburn; well skilled in medicine. Dana Willis Fellows, Portland; founder of the Dental Registration Board. Herbert Wilder Hall, Augusta; eminent as a pathologist. William Bruce Hunter, Dixfield; country practitioner. Henry Willis Hurd, Biddeford; eminent as a citizen and medical adviser. Henry Leonard Kilgore, Belfast; kindly practitioner; sadly afflicted. Daniel McCann, Bangor; skillful surgeon; dead at his wheel. Willis Mabry Pease, Dixfield; genial country doctor. Judson True Sanborn, Waldoboro and Portland; able practitioner in city and country alike. Walter May Spear, Rockland; capable surgeon and hospital builder. Gardiner Luther Sturtevant, Yarmouth and South Portland; a good adviser in town and country alike. Albert Ham Sturtevant, Augusta; remarkable surgical operator. Augustus S. Thayer, Portland; our veteran, of whom we were very proud, for he lived into ninety-three years of activity.

JAMES A. SPALDING, M. D.,  
*Necrologist.*

## COUNTY NEWS AND NOTES

**Kennebec County Medical Association**

The quarterly meeting of the Kennebec County Medical Association was held at the Sisters' Hospital in Waterville, Thursday, April 25, 1929.

The meeting was called to order at 4.00 o'clock in the afternoon by the President, Dr. H. E. Williams, who presided over the clinical session, which included the following program: "Endometriosis," Dr. Arthur McQuillan; "Ex-Ray Demonstration," Dr. John P. Goodrich; "Pernicious Anemia of Pregnancy," Dr. Ralph Reynolds; "Lid Tumor. Demonstration of Patient," Dr. Howard Hill; "Extra-uterine Pregnancy," Dr. Edw. H. Risley; "Chronic Osteomyelitis," Dr. Edw. Paine; "Acute Duodenal Hemorrhage," Dr. J. O. Piper; Demonstration of Cases, Dr. F. T. Hill.

Dinner was served at the hospital at 6.00 P. M., followed by a business session. The minutes of the last meeting were read and approved. Drs. Leverett D. Bristol, 195 Broadway, New York City, and William R. Tymms, Fairfield, Maine, were admitted to membership. Dr. William T. Holt, now of Augusta, was admitted by transfer from the Cumberland County Medical Association. It was voted that the Secretary send notices of the subsequent meetings during the summer and fall to the members of Somerset, Franklin and Androscoggin Counties.

The following papers were read during the scientific session: "Simple Glaucoma — The Responsibility of the Physician," Dr. Howard Hill, Waterville; "Acidosis and Alkalosis," Dr. Samnel H. Kagan, Augusta; "The

Otologic Complications of Swimming—An Attempt at Prevention," Dr. Frederick T. Hill, Waterville. These papers were very instructive and brought out many interesting points. These were discussed by those present.

The members and guests present were as follows: Drs. R. H. Stubbs, M. A. Priest, S. H. Kagan, F. R. Carter, G. A. Coombs, G. R. Campbell, L. F. Fallon, Augusta; Drs. R. L. Reynolds, E. H. Risley, J. P. Goodrich, N. Bisson, E. W. Boyer, F. T. Hill, J. E. Poulin, A. H. McQuillan, H. W. Abbott, B. P. Hurd, C. G. Rancourt, F. E. Wheeler, H. F. Hill, V. C. Totman, P. S. Merrill, E. P. Fish, Waterville; Dr. H. E. Williams, Mt. Vernon; Dr. J. O. Piper, Waterville; Dr. W. H. Chaffers, Lewiston; Drs. G. W. Alexander, A. B. Libby, Gardiner; Dr. H. W. Smith, Norridgewock; Drs. W. S. Milliken, P. E. Gilbert, L. F. Norris, Madison; Dr. C. H. Newcomb, Clinton; Dr. F. H. Freeman, Pittsfield; Dr. E. P. Witham, Oakland; Dr. W. W. Hendee, North Vassalboro; Drs. W. R. Tymms, Frank L. Tozier, Fairfield; Dr. F. B. Ball, Solon.

FREDERICK R. CARTER, M. D.,

Respectfully submitted,

*Secretary and Treasurer.*

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**WANTED.** We have several young men and women well trained as practical laboratory technicians graduating from our School of Public Health. Physicians, surgeons, hospitals, clinics and health departments desiring such service can secure it by writing immediately.

Address, Dr. L. H. South, Director, Bureau of Bacteriology, Kentucky State Board of Health, 532 West Main Street, Louisville, Kentucky.



# DIETING

for slimness ruinous to health  
of Hollywood's stars

☞ *Doctors and nurses, in warning the public of the dangers of extreme dieting, will find support in the sad experience of motion picture stars.*

A NEW danger to the health of motion picture stars has just been revealed. The motion picture camera, in photographing a star, adds from 5 to 20 pounds to the appearance of her figure, so that many of the screen celebrities, because of the fad for slimness, have felt called upon to undergo rigorous programs of dieting.

*Photoplay Magazine* recently announced that many of the stars have suffered collapse because of this dangerous practice. One famous star died of tuberculosis aggravated by weight reduction. Another ruined her career and was made an invalid by starvation. Still another resorted to quick-reducing medicines and is today virtually an invalid. Another star, as mentioned here, collapsed on a set from trying to lose 10 pounds.

One of the alarming dieting extremes indulged in by the stars, according to *Photoplay*, is eating no food at all for breakfast, and seriously limiting the quantities of nourishing foods for both luncheon and dinner. It is small wonder that such a wrong standard of diet should result in disaster. No person can be healthy without eating enough nourishing food, daily and regularly.



Physicians and nurses and teachers, looked to by the public as health authorities, should help bring a speedy end to the dangerous practice of indiscriminate diets to reduce.

The "boyish" figure is a false standard of feminine beauty, and its attainment is likely to be at the price of permanent injury.

Modern health opinion recommends a variety of foods, including vegetables and fruits, both fresh and canned, sweetened for enjoyment. Sweetness is the flavor that encourages the ingestion of nearly all the healthful

roughage, vitamin-bearing foods. Breakfast is a meal likely to be slighted by young working girls and many other busy working people. For this meal applesauce is recommended, or grapefruit, dried and canned fruits and cereals, using sugar to develop the delicious flavors of the beneficial foods.

Let the American people be warned to eat enough. Most foods are more delicious and nourishing with sugar. Good food promotes good health. The Sugar Institute, 129 Front Street, New York, N. Y.

# THE JOURNAL

OF THE

## Maine Medical Association

Published under direction of the Council of the Maine Medical Association

All papers, case reports, etc., should be typewritten when possible.

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The Journal assumes no responsibility for opinions expressed by the authors.

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JUNE, 1929

No. 6

### MAINE PUBLIC HEALTH ASSOCIATION

(Through the kindness of the Editor and Council, this edition of the Maine Medical Journal is devoted to various Maine health agencies, and the reports of 1928 work accomplished by staff members of the Maine Public Health Association follow.)

#### Report of Field Secretary and Financial Supervisor

To the Directors of the Maine Public Health Association and interested citizens, I hereby submit to you my second annual report as Field Secretary and Financial Supervisor of the Maine Public Health Association.

Another year of health work has passed, and it becomes my pleasant duty to report briefly what has been accomplished during that time to create a higher standard of health throughout Maine. It is no longer sufficient to be well in a negative way, but radiant, buoyant, positive health should be every child's rightful inheritance, and it is the fundamental aim of the Maine Public Health Association to help to bring this ideal condition into concrete, material form.

Incorporated as an "educational institution" in 1920, the organization has grown steadily and consistently. New departments have been added from time to time, and new activities have been

made a part of our program. Among our policies at present are listed the stressing of the annual physical examination by family physicians; the importance of early diagnosis, particularly for tuberculosis and cancer; a continuation of and increase in the public health nursing services; an emphasizing of the Clean-Mouth Campaign and Six-Point Child activity; an increase in our clinic program; a continuation of well-baby and pre-school conferences and clinics; and last, but by no means least, the maintenance of the famous Maine Three-Quarter Century Club.

This diversified program of ours is made possible through that powerful and unfailing medium, *Coöperation*. Without that, we could do practically nothing. It requires the concerted attention, thought and interest of children, parents, teachers, nurses, doctors, dentists, oculists, generous friends, voters, and health agencies, both official and volunteer, to develop and maintain a well-balanced health program which will secure the desired results. The Maine

Public Health Association feels extremely grateful that such a spirit of coöperation is evident throughout the state.

In speaking of the health agencies, I wish especially to mention the National Tuberculosis Association, with which we are affiliated, the American Red Cross, and the State Department of Health. All three have been most helpful and coöperative during the past year.

Owing to the fact that the Executive Secretary resigned in February, 1928, the work of the Association has been carried on by an Executive "cabinet," composed of the four department heads. This method has proved very satisfactory, and is to be continued during the coming year. It is interesting to note that the "cabinet" members each took her share of the Executive Secretary's duties without asking for any increase in salary. This demonstrates a genuine love for and interest in the Maine Public Health Association on the part of its workers, and is a symbol of that keyword *Coöperation*, which means in this case, "All for Health for All."

That the general public realizes the need and importance of public health work is shown by the fact that at the annual town meetings held during March, 1928, the sum of \$14,655.00 was appropriated for the maintaining of nursing services under our supervision. These appropriations varied from \$5.00 to \$1,800.00, according to the size of the town, the amount of work to be done, and the interest in public health nursing; but the total amount as compared to the \$6,150.00 reported in 1927 is certainly encouraging.

During the month of March we launched a campaign to stress the importance of the early diagnosis for tuberculosis. Posters were exhibited; health

talks were given emphasizing this phase of health work; two movies were purchased and exhibited; about 5,000 pamphlets were distributed to workers in mills, factories, shops, etc., and to pupils throughout Maine. The total cost of this activity was \$76.00, and the splendid results obtained have far exceeded the cost.

Gifts from interested citizens, manufacturers, corporations and clubs amounted to \$17,244.51. To these friends who show their generosity and consideration in this very practical, beneficial way, we extend hearty thanks. Mr. William Bingham, 2nd, of Bethel, Mrs. J. C. Stodder, of Bangor, and Mrs. E. S. Woodman, of Winthrop, should receive a special word of gratitude for their fine contributions, which mean much to the Association's welfare. In addition to the amount of gifts mentioned in this paragraph, several of the local and county nursing services were the recipients of donations made especially for the continuation of those specific services. These gifts, too, are much appreciated.

One hundred and thirty-seven residents of Maine became members of the Maine Public Health Association last year, thus showing their willingness to endorse our program as outlined and executed. The dues are \$5.00 per year, therefore our treasury was in receipt of \$685.00 as a result of these memberships. There were also six clergymen who took advantage of the special clergyman's membership, as well as four "out-of-the-state" members. The dues being \$2.00 per year for both classes, this resulted in \$20.00, which was applied to state-wide work.

The total seal sale for the State of Maine in 1927 was larger than ever be-



fore, amounting to \$31,455.86. The National Tuberculosis Association received 5% of the total amount, or \$1,572.79. This percentage is paid to the National by every State Association in the country and is a very small assessment. After the 5% was deducted, the local and affiliated services in this state were credited with \$18,368.67, while the M. P. H. A.'s part was \$11,514.50, which was used to increase our clinic program, carry on extra work for preventing tuberculosis, organize for the sale, and purchase the seal sale supplies.

A campaign for funds was conducted in Hancock County, and about \$1,200.00 for the Hancock County service was raised. A special gift of \$2,300.00 was received, and this was used to establish a new nursing service in Southwest Harbor-Tremont in September, 1928. The summer residents in this county are keenly alive to what is being accomplished to raise the standard of health, and the annual appeal always finds them willing and ready to assist financially in the maintenance of the nursing services in that section of Maine.

Perhaps the most unique phase of our program is the organization and continuation of the famous Three-Quarter Century Club. Many state associations give particular care and attention to the boys and girls in their commonwealth, but, so far as we can ascertain, the Maine Public Health Association is the only state organization that duly recognizes with honor and festivities the residents who have achieved longevity. In 1928 the annual field day and reunion was held in Bangor, August 2nd, and the Chamber of Commerce of that city entertained the group, numbering about 5,500, in royal manner. The M. P. H. A. appreciates the hospitality extended the venerable

members of the Three-Quarter Century Club, who now number nearly 14,000. A special feature of the occasion was the fact that St. Petersburg, Florida, which has a local organization of its "boys and girls" of seventy-five years or more, sent as delegate the Secretary of its Club, Mrs. Evelyn Barton Rittenhouse, whose address was one of the principal events of the day. The officers of the Maine Club are as follows: President, Hon. George C. Wing, Auburn; Vice-President, Mr. A. M. Dunbar, Waterville; Secretary, Mr. Wilder W. Perry, Camden; Executive Committee: Ex-President, Hon. Henry Lord, Bangor; Rev. D. H. Bartlett, Skowhegan; Mrs. Lucia Rogers, Madison. The last two members were prize winners in the Literary Contest, winning the two five dollar gold pieces presented by Booth Tarkington, the talented novelist, for the best essays on "Home Cures and Remedies of Seventy-five Years Ago." The invitation to meet in Auburn in 1929 was accepted and the members are looking forward with keen anticipation to the next "*get-together*." The total expenses for the Maine Public Health Association for the 1928 meeting were \$305.27. As several of the smaller bills for the 1927 meeting were not received until early in the following year, you will note in the auditor's report the sum of \$410.84 listed as a T. Q. C. Club expenditure, rather than the \$305.27 which was the actual cost of the 1928 meeting for us. Owing to the fact that the Secretary, Mr. Perry, was unable to be present at the annual meeting, there will be no separate report of T. Q. C. C. activities in this edition.

In connection with this club, M. P. H. A. representatives presented two residents of Maine with the famous gold

centenarian's medal during the year. August 12th Mr. James McCarter celebrated his 100th anniversary at Cushing, and September 19th the same honor was attained by Mr. Tillotson Wing, of Peru.

During the fall health booths were conducted at several of the county fairs. Through the courtesy of E. C. Glover, President of the Waterville Fair Association, exhibit space was offered us there. The offer was accepted, and the exhibit created much favorable comment and attention. Samples of 67 different health pamphlets were displayed, in addition to the exhibit, and 413 copies were sent free of charge to interested citizens who left their names and addresses at the booth.

Following an instructive visit from Mrs. Albert E. Sinks, seal sale promoter from the National Tuberculosis Association, early in September, organization work preliminary to the 1928 seal and bond sale was started, and continued through October, November and into December. In many places a new method of selling the seals entirely by mail was tried and returns are coming in very satisfactorily. All indications point to a record-breaking sale. To the splendid committees throughout Maine who are carrying on so ably and willingly to make the 1928 seal sale a success, we extend hearty thanks.

In closing, I wish to express appreciation to all those whose generosity and interest have made it possible for our plans and program to materialize. The Maine Central and Bangor and Aroostook Railroads have given free transportation to our nurses and field workers, and to them we extend our deep gratitude.

In summing up the year's finances very briefly, a total of \$64,004.53 was

received, while the expenditures were \$62,618.86 leaving a balance Jan. 1st, 1929, of \$1,385.67 in the treasury. All bills have been paid, and the Maine Public Health Association begins the new year with all debts eliminated, and expressing the hope that the wonderful spirit of coöperation which has been so evident during the past year will continue through 1929.

Respectfully submitted,

ALICE H. MCGOULDRIK,  
*Field Secretary and Financial  
Supervisor.*

January 1st, 1929.

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### **Report of Child Health Education Service**

**For year ending Dec. 31, 1928**

To the Officers and Executive Committee of the Maine Public Health Association, I respectfully submit my sixth annual report of the Child Health Education Service.

Between August 27th and Thanksgiving I reached many of the schools in fifty-six unions and spoke at eighteen teachers' meetings. During the year talks were given to men's and women's clubs, parent-teachers' associations, and to student teachers at the normal schools. Health talks were also given at the summer sessions which were held at the state normal schools, and at the St. Louis School in Fort Kent.

Through the courtesy of the National Dairy and Food Council, a splendid exhibit was arranged at the State Teachers' Meeting, which was held in Bangor in October, and quantities of health education material was given out. During the year copies of free health education material was given to teachers in all sections of the state.

### MODERN HEALTH CRUSADE

During the school year 1927-28, approximately 20,000 children were using the M. H. C. In previous years the National Tuberculosis Association has awarded pennants to schools or classes in which the greater number of the children have performed the required number of health chores for a period covering twelve weeks. In the future, instead of pennants, attractive certificates will be awarded to schools that qualify. When the certificate is awarded a red seal is affixed. A blue seal will be awarded for the second year and a gold seal the third year.

For four consecutive years Maine stood second in proportion to her population in the number of national pennants won. In 1928 Maine was awarded 365 pennants, which gave us first place. The state of Iowa, which had held first place ever since the Health Crusade was inaugurated, moved down to second place. In December, 1928, 30,000 children were enrolled in the M. H. C. and sixty-seven certificates had been awarded, as compared with twenty-seven pennants in December, 1927.

### CLEAN-MOUTH CAMPAIGN

The Clean-Mouth Campaign, which was organized in May, 1926, was conducted as a part of the Six-Point Child health program, also sponsored by the Association. An analysis by the Association showed that a tremendous number of children were failing to win the award solely because of defective teeth, and so the Clean-Mouth Campaign was evolved. At this time two certificates were offered, one to schools having 100% dental corrections and one to schools having 50% or more dental corrections.

The plan naturally depends on the

superintendents and teachers for its success, and the results show that our confidence is not misplaced. In the year 1927, only five classes in the state had 100% dental corrections, as compared with thirty-two classes in the year 1928. In 1927, 35 schools were given 50% awards and in 1928, 135 schools were awarded the 50% Clean-Mouth certificate. The increase of 150% in the 100% class and 135% in the 50% class was very gratifying. A good deal of dental machinery is in motion all over the state, and there should be a substantial increase this year.

### SIX-POINT CHILD ACTIVITY

In September, 1928, the Six-Point Child activity was offered to services not affiliated with the M. P. H. A. There have been a great many requests for the Six-Point Child award and there is already a marked increase in the number of Six-Point children.

### SEVEN-POINT CHILD ACTIVITY

In October, at the request of Dr. Clarence F. Kendall, State Commissioner of Health for Maine, a seventh point was added to the list of requirements. The seventh item signifies that the child has had his birth duly recorded, and when he brings to the school a certificate of birth registration, a large blue seal is affixed to his Six-Point Child Certificate. A fine proportion of Maine boys and girls have already qualified on this seventh point.

### CONCLUSION

In closing, I wish to thank the superintendents and teachers for their support and interest. To all citizens who have coöperated to make the program a success, I extend appreciation. The children, too, deserve a special word of grati-



tude for the whole-hearted manner in which they have entered into the various campaigns which have been carried on by this department during the year.

Respectfully submitted,

ABBIE M. BUCK,

*Child Health Education Director.*

## Report of Public Health Nursing Service

### INTRODUCTION

To the officers and friends of the Maine Public Health Association, as director and supervisor of the nursing staff of the Maine Public Health Association, I submit my second report for the year 1928.

Looking back over a period of five years, many changes may be noted in staff activities of our Association. The growth in the size of the staff from three or four nurses to thirteen indicates in a measure how rapidly the trend of the public mind is changing in its concept of health.

The increase in amount of town appropriations for nursing service shows that the people of Maine are rapidly coming to realize that no town is adequately meeting the needs of its citizens unless they make provision for public health service, as well as for public education. Economically, in promotion of happiness, and reduction of suffering no other form of public service pays such large dividends to the people.—(*Hoorer's Inaugural Address.*)

### ORGANIZATION

The nursing staff of the Maine Public Health Association at the close of the year 1928 numbers fourteen, including supervisor. The county nurses, so desig-

nated because of the size of territory to which they are assigned, are carrying programs in York, Franklin, Somerset, Hancock, Penobscot, Piscataquis. Nurses carrying local programs in towns are found in Norway, Skowhegan, Dexter, Southwest Harbor and Tremont, also five town unions are being supplied with service in Flanders Bay and South Franklin County.

### PROGRAM

The program of work for the coming year was carefully planned by your supervisor to meet existing needs of the territory to which nurses were assigned. This program was discussed in conference with nurses before starting the year's work. The new daily and monthly report forms have made it possible to have our records kept in an accurate and uniform manner. The nurses are required to pay all current bills monthly, and are not reimbursed for this expense until they file an itemized statement with this Association showing signed receipts for each expenditure incurred. Thus the nurses serve not only as such, but also as executive secretaries in their respective territories. The program must be adapted to the climatic conditions and local needs. From September until June 1st the school nurse program is emphasized. At least one careful physical inspection is made of the school children, with written notifications of defects sent to the parents. Also calls are made on some of the most urgent cases needing attention. During summer months pre-school clinics, promotion of May Day programs, health programs with clubs and farm bureaus, home follow-up visits on school children and sick patients, with round-up of patients for crippled children and chest clinics complete a full program for the year.

### HEALTH EDUCATION

No nurse is meeting completely the needs of her service unless she stresses health education. The minimum health requirement, the Six-Point Child, for the school pupils and children entering school, was adopted and sponsored by this health association in the latter part of the year. No project was ever received with greater enthusiasm or with more success. Over 5,000 school children had qualified at the end of the year on the six points of health, namely, teeth, throat, vision, hearing, posture and weight. It had become a great factor in securing corrections of defects. The children insist on being "Six-Pointers" and therefore the parents must have the necessary corrections done. Coöperation is given the teachers and Miss Buck, Health Education Director, in preparing and carrying on other phases of health programs in the schools. The formal participation in the New England Health Play Contest was voted favorably in December by the Association and three money prizes were offered to the three high school pupils who will submit by April 1st, 1929, the three best plays.

### SPECIAL PHASES

Reorganization of the state-wide clinic program is being started this year. A full-time clinic nurse has been employed for six months. She will be sent in any territory which desires a diagnostic clinic in lung, heart, cancer or orthopedic conditions, and will look after the details in the carrying out of such a clinic, also consequent follow-up. This nurse will work in coöperation on this clinic program with a staff of diagnosticians who have given this valuable service largely for the benefit of the rural sections of this state who are greatly in need of such

a service. All the expenses of these clinics are borne by the Maine Public Health Association. The nurses have given valuable assistance in the Early Diagnosis campaign. Through their initiative, thousands of little booklets, "Let Your Doctor Decide," have found their way into pay envelopes of the industrial plants in the state. The health film, "Let Your Doctor Decide," also has been shown before many audiences, and large posters in store windows and schoolrooms show that the public health nurses are ever thinking how they can best teach health in its broadest and most constructive sense to their people. The nurses have this year helped to provide reparative clinics in dentistry in three new territories for children who are unable to pay only a small sum. By teaching the little ones the way to the dentist's office early in life, perhaps they will have acquired the habit so firmly that they will continue to go in adult life.

### NEW AFFILIATIONS

Many towns are realizing the value of professional supervision of their services. Three new services, one in Skowhegan, one in Southwest Harbor-Tremont, and South Franklin County asked for affiliation with the Maine Public Health Association. Assistance is given them through this affiliation in raising their budget, rendering financial assistance in a crisis and solving the nursing problems which the nurse may meet.

No better picture can be given of what the service is that the Maine Public Health Association nurses give to the rural sections of Maine than by the following report which covers the service of eleven nurses for one of our severest winter months. Fifty-five towns were given some form of public health nurs-

ing. Bedside care and instruction were given to 460 patients in their homes. Two hundred fifty-five visits were made to find out about health conditions and to give constructive advice in solving problems. Two hundred fifteen rooms were visited by the nurses in 135 schools—1,692 pupils were given full health inspections and 657 were looked over at suggestions of the teachers for symptoms of skin and communicable diseases. Assistance was given dentists with examination of 230 children, and doctors in the vaccination of 445 pupils. As a result of these inspections, defects were found which caused the nurse to refer 516 children to their physician, 548 to their dentist and 159 to their oculist. One thousand four hundred three notifications were sent to the parents whose children had apparent defects which might be corrected. Significant points in this analysis of work show that pupils 10% or more under weight number 153. Those living in daily contact with cases of lung tuberculosis now or in the past few years number 33. Also that of this number examined, 1,244 pupils had one or more defects, while only 405 were free to meet the six points of health. In spite of these apparently pessimistic points of this report, the nurses show that since their last visit to these schools 52 pupils have been fitted to glasses, 1 hearing defect has been corrected, 197 children have been to the dentist, 101 have had necessary throat operations and 391 have qualified as Six-Point Children. Work with pre-school children has also received attention, six clinics having been held, which were attended by 32 children. The nurses, in addition, spoke at 18 public meetings, thereby reaching 264 people. Thirty-one newspaper articles were sent out, 1,935 health literature pamphlets distributed and 471

nursing reports sent to interested citizens. Six patients were personally conveyed to doctors, also six were taken to the state sanatorium.

Office work receives its due share of attention. Six hundred nineteen letters were written, 289 telephone calls answered and 155 people called on the nurses in their offices. If public health nursing is of value to a community, its true measurement can only be determined by accurate records kept up to date. The nurses spent  $309\frac{3}{4}$  hours on records and reports, an average of 28 hours per nurse, or approximately 1 hour per working day.

In conclusion, your supervisor wishes to draw your attention to important factors in the successful development of any public health nurse program. The services must be adequately budgeted and backed by enthusiastic and interested people who will raise this budget. There must be the need for the service and a strong feeling of loyalty to the project which will induce the committee, particularly in its early infancy, to back it firmly until it has had a chance to prove its value.

The funds must be wisely administered and all bills approved and paid promptly, the program well planned and adapted to meet the needs of the locality, and last of all the nurse must not only have a sound professional training, but must have, in addition, special training in various phases of public health nursing. An important fact not to be overlooked is to see that she is adaptable and friendly and has a genuine love for rural people. All these points have been taken into consideration in the development of your nursing program.

Respectfully submitted,

THERESA R. ANDERSON, R. N.,

*Director of Nursing Service.*



## STATISTICAL REPORT—JANUARY, 1928, TO JANUARY, 1929

ANALYSIS OF NURSING SERVICES	Hancock	Penobscot	Piscataquis	North Franklin	South Franklin	Somerset	York	Dexter	Flanders Bay	Norway	S. W. Harbor -Tremont	Skowhegan	Totals
Visits to homes to give instruction	466	104	109	136	33	19	16	195	50	145	37	33	1343
Visits to homes to give bedside care	51	14	5	8	78	2	17	469	521	422	226	996	2809
Visits of investigation	191	28	57	27	78	26	219	27	137	13	64	49	916
Visits of miscellaneous nature	415	86	92	116	229	206	188	1725	34	106	43	47	3287
Total visits to homes	1123	232	263	287	418	253	440	2416	742	686	370	1125	8355
SCHOOL NURSING													
Visits to school buildings	136	242	112	170	89	44	236	173	13	125	96		1436
Visits to schoolrooms	206	339	183	255	128	56	363	450	61	294	136		2471
Room inspections given	683		90	232	37	38		55	12	34	21		1202
Pupils given physical inspection	1369	4327	2149	3693	1802	869	2685	498	411	1962	378		20143
Pupils inspected for special reason	1000	1322	260	2211	189	3	2420	256		410	206		8277
Pupils examined by physician, nurse assisting	160	52	342		252	183	182	590	54	1			1816
Pupils examined by dentist		454			27		401	914					1796
Pupils examined by oculist		82		4	9		327		3				425
Pupils referred to physician	824	1329	460	446	319	241	782	115	116	9	120		4761
Pupils referred to dentist	1198	1911	565	1415	798	512	1202	574	223	34	226		8658
Pupils referred to oculist	348	288	177	458	185	84	327	90	19	31	78		2085
Exclusions from school advised	66	30	30		31	21	27	39	5	6	65		320
Notices of defects sent to parents	1598	2490	1002	1655	793	619	2315	774	77	372	379		12074
Follow-up visits made	675	215	52	93	157	25	265	31	170	95	94		1872
Sanitary inspections school buildings	75	128	45	29	18	35	65	5	30	10	21		461
Health talks given in schools	159	160	115	237	91	48	155	74	50	83	21		1193
DEFECTS FOUND													
Eye and vision	454	455	191	483	191	101	427	135	54	101	117		2709
Eye and hearing	96	26	20	63	15	9	52	3		3	4		291
Defective teeth	1109	2599	389	1060	473	445	708	222	287	372	224		7888
Abnormal throats	553	1884	376	779	576	97	894	184	131	157	120		5751
10% under weight	139	334	132	415	170	71	267	278	30	132	40		2008
20% over weight	50	66	29	79	59	23	121	65	14	72	27		605
Thyroid enlargements		5	14	1		13				24			57
Lymph nodes	399	3	45			27	4	1			63		542
Postural troubles	576	117	25	236	18	112	424	18	137	244	285		2192
Vaccinations done		125			127		8				56		316
Tuberculosis contacts	64	18	4		2	4	24	8	13	2			139
Skin diseases found	74	90	31	8	335	38	105	107		37	17		842
CORRECTIONS													
Teeth	23	100	106	873	258	83	108		216	85	47		1899
Throat	23	306	17	208	93	33	63		120		23		886
Vision	8	153	30	179	84		17	22	67	7	31		598
Hearing	4			56		2							62
HEALTH EDUCATION													
Parent-teacher meetings and clubs addressed	16	1	2	6	2		2	19		2			50
Classes in home nursing	6		2				10	1	5	46			70
Classes in infant care			1	5					2	5			13
Mothers' conferences		3		1			2		4	51			61
Farm bureau demonstrations	14	25	10	5	3	7	10	1			2		77
Total attendance at these meetings	1685	355	411	813	445	128	724	10	82	1027	48		5728
No. pupils competing poster contests		25	5	3		1		4					38
Exhibits arranged	4	3	1	3	1		1	9		4			26
Six-Point children found	38	160	253	1414	230	120	1435	287	114	251	2		4304
Literature given patients							1289	1318		535	6		3148
Other meetings addressed	25	5	8	24	3	1	9	7		23	1	14	120

ANALYSIS OF NURSING SERVICES	Hancock	Penobscot	Piscataquis	North Franklin	South Franklin	Somerset	York	Dexter	Flanders Bay	Norway	S. W. Harbor - Tremont	Skowhegan	Totals
<b>CLINIC PROGRAM</b>													
No. of dental clinics	2												2
Attendance	79												79
No. of chest clinics	1			1			1	1					4
Attendance	170			48			38	46					302
No. of orthopedic clinics	1		2										3
Attendance	68		28										96
No. of pre-school and infant clinics	17	27	12	23	7		6	22	4	2		24	144
Attendance	224	281	82	156	79		140	53	121	104		101	1341
Patients taken to doctor	9	4	8	13	17	5	17	25	24	3	9		134
Patients taken to oculist	1	6		4	12	1	5		22	1	15		67
Patients taken to dentist	4	2	5	8	19	4		1	91				134
Patients taken to hospital	7	3	5	2	9		22	3	12	2	1	1	67
Patients taken to sanatorium	4		1	1	1				2			1	10
<b>GENERAL OFFICE DUTIES</b>													
Correspondence answered	2039	209	418	425	172	150	580	315		163	41	117	4629
Telephone calls taken	455	192	182	215	444	45	139	327		297	53	192	2541
Office calls	630	307	53	60	153	25	58	290	20	227	10	44	1877
Time spent on records (hours)	119	332	210½	322	182	86	149½	219½	92	196½		137½	2046½
Time spent on office duties (hours)		197	210	83	64½	202¾	441	374	62	437		261½	2332½
News items published	88	2	57	38	41	6	44	64		19	1	30	390
Reports sent out	344	320	220	289	260	66	470	360	88	17	24	20	2478
Time spent in travel		342½	291½	342½	441¾	128	183½	30	449		142		2350½
Car mileage for whole year		5785	3585	5015	6066½	1437	8004	1229	11453		2477		45051½

NOTE.—Spaces which are not filled in are left this way because no record has been kept by the nurses or because that type of work has not been given in that particular field during the past year.

### Report of Hancock County Health Nurse for 1928

To Theresa R. Anderson, R. N., Supervisor and Director, I hereby submit my annual report for the year ending 1928 for the Hancock County Health Nurse.

For the third time we come to you trying to tell you of the health needs of Hancock County, and the care we have been able to give to alleviate unnecessary sickness and suffering.

A large heart, lung and asthma clinic was held at the Hurley Hospital in Ellsworth in May, 1928. The attendance was 170 persons, each with a definite need. Fifty-two of the patients had some form of heart disease; these were examined by Dr. Drake, a heart specialist of Portland. Thirty-six were asth-

matic cases, and were tested for causes of asthma by Dr. Sylvester, of Portland. Follow-up work shows many of these sufferers greatly relieved and some entirely cured by following the doctor's directions. There were eighty-five chest cases; these were examined by Dr. John Shaw, of the Fairfield Sanatorium, and by Dr. Carl O'Brien, of Bangor, both specialists in this line of medicine. Our follow-up work shows us that we have six children in the preventorium, several adults in the sanatoriums, and others taking the cure at home under their own physicians. The county and visiting physicians assisted the specialists. Public health nurses from various services in the county also helped at the clinic.

A dental clinic was held in Bluehill in coöperation with the Red Cross.

Seventy-nine children attended. Sixty-nine children had completed dental work—145 extractions were made of teeth too far gone to save, 168 fillings and 69 prophylactic cleanings. The far-reaching results of this clinic cannot be measured in numbers, as many children went to their own dentist as a result of the desire to measure up to a standard created by the dental clinic.

Well Baby Conferences were held in different parts of the county; where possible, a physician was in attendance. The babies were weighed and measured and examined; the mothers were advised as to feeding and care. Follow-up visits show that many corrections have been made as a result of these conferences.

As a result of the smallpox scare over the state, vaccination for smallpox has been more frequent than in the past; the nurse has assisted the physicians and visited the children in their homes when needed.

Farm bureau woman's clubs have had classes taught by the nurse. These classes included home nursing, first aid, and general care for a baby.

Exhibits were arranged at two fairs. In the Ellsworth Fair the State Dental Hygienist, Miss Dorothy Bryant, examined the children's teeth and advised about their care. At the Bluehill Fair the nurse also conducted a first-aid tent, having 16 first-aid dressings.

The need for communicable disease work was large this year. Typhoid fever was in our midst—thirteen cases, with two deaths—leaving in its wake six typhoid carriers, which makes a very serious health problem, and this problem calls for continual health supervision. Twenty-seven cultures were taken for diphtheria diagnosis. Infan-

tile paralysis again visited the county. Measles was with us in alarming numbers, causing several deaths. We had the usual line of chicken-pox, whooping cough, etc., also our usual run of skin diseases, all of which take up much of the nurse's time and energy, yet they are a really important part of her work. On the road, as she is, she sees many accidents and has many first-aid dressings, some of them quite serious.

The Girl Scouts, who are becoming quite popular in the county, have to have health talks and practical instruction in first-aid and health; this, of course, falls to the nurse as the person fitted for such work.

In this county, as in all health work, there are the old and infirm, the ill, the contagiously sick, and the tubercular, all of whom must have care, not only in order to get well or to be comfortable, but to protect the county from the spread of communicable diseases and tuberculosis.

The health work in schools, which takes up the major part of the nurse's work, included the Health Crusade, and the Clean-Mouth Campaign. One school, Eastward School, in Bluehill, won a 100% certificate. Then we have the Six-Point Health Pin, with a certificate signed by the Commissioner of Education, Dr. Augustus Thomas, Commissioner of Health, Dr. Clarence Kendall, and by Mr. Henry Richards, President of the Maine Public Health Association. To win this pin and certificate the child must stand correctly, weigh reasonably near the proper weight, have 100% teeth, have normal hearing, vision, nose and throat. Ninety children have won their pins in Hancock County during the year 1928.

A nurse is not, as a rule, a social



worker, but as we have no trained social worker in Hancock County, the nurse must arrange for necessary comforts, provide ways and means for better housing, hospitalization, proper nourishment, etc., for her patients; assist with child problems, and any and all situations which influence the social and health conditions of the county.

We would like to mention our two affiliated town nursing services—the Flanders Bay Nursing Service, now over two years of age, and the Southwest Harbor-Tremont Nursing Service, organized in September, 1928. Both services are giving a general program such as is included in the county, but in addition is general bedside care such as is not possible in so large a territory as Hancock County.

All these services are supported by the Christmas seal sale, contributions, and town appropriations. We hope the towns served will do their best to make it possible to carry on this work in the future.

We could not close a report of the health work in Hancock County without thanking all the splendid men and women who have labored early and late to raise the money and promote the work, the doctors who have so willingly given of their time and skill, the newspapers which have made our message to the people reach far through their generous gifts of space, those who have given financial help though they themselves would have no benefit of the service, Mrs. Charles Hurley for her generous gift of her hospital for the heart and chest clinic and for sterilizing dressings for the nurse, the ministers who so gladly broadcast our seal sale messages from their pulpits and gave us their moral backing, the Maine Public Health Asso-

ciation, which has supervised our work and kept it up to standard, which has given us our clinic service with no cost to the county, which has furnished us with a Health Education Director to promote health education in our schools, which has given us the service of their Financial Secretary to help us raise the money necessary to carry on the county health work, and all others who have in any way made this much-needed work possible for Hancock County.

Respectfully submitted,

ALICE L. BASSETT, R. N.,  
*Hancock County Health Nurse.*

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### Report of Penobscot County Nursing Service for 1928

To Theresa R. Anderson, R. N., Director and Supervisor, I hereby submit my report as a public health nurse.

I hereby submit my first annual report as a public health nurse in Penobscot County. This county in area is the third largest in the state. The number of towns receiving the service of one nurse exceeds that of any other service supervised by the Maine Public Health Association. Next to Aroostook County, weather conditions and travel in the winter constitute a great handicap in reaching isolated rural towns. Inasmuch as many of these towns have done their bit in raising even a small fund toward public health service for their community, it becomes the duty of the nurse to give them the service when it is due them, regardless of hardships.

This voluntary health service is given to each community according to the way in which their town budget is raised. The towns giving town appropriation receive their service first.

Those who have made a substantial contribution to the work from seal sale receive the service next in order. Every effort is made to approach as nearly as possible value received for money given.

The service throughout the year has been general in type. School nursing has been given when the need for this service is greatest, between September and June. Attempt is made to give every school child one physical inspection a year, with a notification going to the parents of defects found. If the condition of the child is acute, a home visit is made to the parent on that particular visit to the school, and if conditions warrant it, assistance offered by the nurse in obtaining a correction of the defect. On this visit every child who qualifies on the six points of health, teeth, throat, vision, hearing, posture and weight, is given a pin for the child to wear and a certificate for the parents. The special problems met with in the school program have been epidemics of scarlet fever and pediculosis. The nurse is able to give valuable coöperation to the health officer in checking both these troubles.

Special campaigns, such as "The Early Diagnosis," have been emphasized during the month of April, the nurse making arrangements for showing of films, and also securing the coöperation of industrial plants in placing circulars in the pay envelopes of their employees, stressing the need of early diagnosis in tuberculosis. One town in its school work made a drive for "Good Teeth for Every Child." This was sponsored locally by the schools and the local club. Eighteen baby conferences have been held in different towns during the year. The interest of mothers to discuss the welfare of their babies with

the nurse is shown by the fact that one mother walked two miles over rough country roads to attend one of these conferences. The wheel came off the baby's cart, and the mother finished the trip carrying a thirty-pound baby in her arms. The nurse was glad that she could carry the mother home after the conference.

Eleven meetings with farm bureaus have been held during the year, at which programs and demonstrations on health have been given. Assistance has been given to many patients in providing transportation to and from sanatoriums and hospitals. One instance may be cited where a small baby was plainly dying of lack of intelligent care and feeding. The nurse made a visit at the home late one night and found that it had been indicated by the doctor to the parents that there was no chance for this child to live unless it could be placed in the hospital immediately. The mother, ignorant and suspicious of all hospitals and nurses, was hard to convince that the only chance for her baby was immediate treatment. After much persuasion, the nurse took the father and baby and started for the hospital that very night. After a matter of a few months the baby was returned to its parents improved and in good condition to gain, but the work did not stop there. The nurse still visits the family to see that the mother continues to care for the child intelligently. Needless to say the nurse has made a firm friend of this family.

During the fall months the Maine Public Health Association gave the services of its special nurse for intensive work in the rural sections. This service was much appreciated by the towns. During the past year 143 visits have

been made to 49 different towns, the least time given has been one day and the greatest amount of time, ten days.

In conclusion, the nurse expresses appreciation to her committee, the Chamber of Commerce in Bangor, and her State Association for supervision and the services of the Financial Secretary in raising the budget for the year.

Respectfully submitted,

KATHERINE NOBLE, R. N.,

*Penobscot County Nursing Service.*

### **Report of Piscataquis County Nursing Service for 1928**

To Theresa R. Anderson, R. N., Supervisor and Director, I hereby submit my report as public health nurse.

The work for the past ten months has been carried on by Mrs. Helen Hutchins, who took this position on the resignation of Nina F. Mooers, R. N. Mrs. Hutchins resigned in October, 1928, and the nursing service for the month of November was carried on by Bella C. Davis, special nurse for the Maine Public Health Association. The present nurse took over the work on November 1st.

One of the first duties of the nurse was the establishment of a county office. Heretofore the work had been carried from the nurses' home as headquarters. It also was felt at this time to be a good plan to enlarge the sphere of activities of the nurse, making it more generally county-wide. The nurse therefore made every effort during the past year to give some form of service to every town without public health nursing in Piscataquis County. Through the assistance of the State Association, for the first time, two crippled children's clinics were held in Dover and Milo, with a total attend-

ance of twenty-eight. The county was very fortunate in having the services of Dr. E. G. Abbott, of Portland, as diagnostician at these clinics. In the month of March an active campaign was put over on "Early Diagnosis." The following industries coöperated in this campaign by attaching leaflets to 2,000 pay checks. Bangor and Aroostook R. R., American Thread Co., American Woolen Co., Central Maine Power Co., Monson Maine Slate Co., Old Town Woolen Co., Hardwood Products Co., Atlas Plywood Co. The film, "Delay is Dangerous," was shown in many towns. The stations and public buildings were placarded with posters. One town library made a very valuable contribution to this campaign in placing a leaflet in every book going out for one week.

This county claims the distinction of being the only county in the state to put on a Cancer Prevention Campaign. This was done largely through the women's clubs, which gave valuable coöperation.

Exhibits on health have been shown at the fairs in the county, much health literature distributed, and a prize offered for the three best health posters exhibited by the 7th and 8th grades in the county.

The usual amount and type of public health nursing has been done in other branches of the work, a statistical report of which will be found in another part of this report. It is too early for your present nurse to determine fully her plans for the coming year, but it will be her resolution to give each town service for money appropriated, to give that type of service which the town most needs, and to take care of all emergencies promptly.

In conclusion, your new nurse solicits



the coöperation of the public and committee in helping to make Piscataquis the healthiest county in Maine.

Respectfully submitted,

LOUISE NICHOLS, R. N.,

*Piscataquis County Nursing Service.*

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### **Report of North Franklin County Nursing Service for 1928**

To Theresa R. Anderson, R. N., Director and Supervisor, I hereby submit my report for 1928 as a public health nurse.

The present nurse took over the program in public health for this service on February 1st. At this time a change in the organization of the county work was made. Previous to this year, Franklin County work was carried on by two nurses, with headquarters at Farmington. It was felt to be a better plan by the committee at this time to organize it as two separate nursing services, the lower part of the county, comprising the towns of Carthage, Weld, Chesterville, Jay and Wilton, to have its own nurse and to be known as the South Franklin County Nursing Service; the North Franklin County Nursing Service would comprise the remainder of the towns in the county, the nurse to have her headquarters at Farmington. This plan has proved to be very satisfactory.

The county nurse has made every effort to stress the general program which is outlined and given to each nurse at the beginning of the year by the Supervisor of the State Association. This outline serves as a guide only and must be adapted to meet local conditions. It is, however, of great value to a nurse starting in a new field. The

main points emphasized in this program are as follows: School nursing while the schools are in session, pre-school conferences in the early spring, farm bureau programs and school follow-up in the summer months, instructive visits to patients ill with tuberculosis and a case finding program so far as possible, health exhibits at fairs and public meetings, coöperation with the State Association on special campaigns for health, and at least twenty Well Baby Conferences during the year.

Special effort has been made this year to find children who qualified as Six- and Seven-Point children, also to list all children found in the public schools who are more than 10% under weight or who have lived in daily contact for some length of time in the homes with patients ill with tuberculosis. These figures will prove of value in securing early diagnosis and treatment for incipient cases of tuberculosis.

Every school in every town has received its annual physical inspection of pupils in the early part of the school year and a spring check-up has been made to determine the results of this work. A new departure in this service has been an effort on the part of the nurse to send some new health literature to teachers of every school each month. Through the coöperation of the physicians of the County Medical Society, arrangements were made for Dr. George L. Coombs, of the Division of Social Hygiene of the State Department of Health, to give talks and moving pictures before high schools in several of the towns.

Opportunity was provided, also, through the County Medical Society, for a chest diagnostic clinic. This was held in Wilton and was attended by 27 patients. Each nurse was made respon-

sible for the follow-up of the cases which came from her own territory. This clinic will be repeated each year. A meeting of the county committee was held in Farmington in October and plans for the coming year discussed. The committee expressed a great deal of satisfaction that finances were in such a prosperous condition.

In conclusion, the nurse wishes to thank the medical profession, clubs and various local committees for assistance in solving her various problems.

Respectfully submitted,

ADA H. STAFFORD, R. N.,  
*North Franklin County  
Nursing Service.*

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### **Report of South Franklin County Nursing Service for 1928**

To Theresa R. Anderson, R. N., Supervisor and Director, I hereby submit my report as a public health nurse for the current year.

The organization of the South Franklin County Nursing Service had its beginning some time in December, 1927. The towns of Wilton, Jay, Chesterville, Weld and Carthage were asked to send a representative to a meeting at Wilton, to discuss plans for a union service. By vote of the Executive Committee of the Maine Public Health Association, this service was to be carried on until the first of April, free of charge to the five towns in the union.

Miss N. Blanche Richardson, R. N., took over the demonstration at the beginning of January. Her work was so favorably received that town appropriations, with 80% of the seal sale and generous gifts from two Wilton citizens

created a budget of \$2,600. Although it was necessary to purchase a new car for the nurse this year, the committee has been able to carry the work with practically no deficit at the end of the year.

In a five-town union, as in a county, the service must be apportioned according to the amount raised by each town. Of course this program must of necessity be interrupted to meet the exigencies of acutely ill patients who need bedside nursing, but at the end of the year every effort will have been made to divide this service in a fair and impartial manner.

School nursing in fall and winter months, pre-school and infant welfare in the spring and summer—sandwiched in this program are National Child Health Demonstrations in May and farm bureau programs—also each day some patient must be cared for at the bedside, which does not allow opportunity for many dull moments in the nurse's life.

That the first year of our five-town service has proven its worth is ably demonstrated by the volume of work given, as shown elsewhere in this annual report.

Special phases of the work have been farm bureau programs, at which talks on "Emergencies" and "The Baby's First Year" were given in each town. The nurse also arranged for special programs with Dr. Coombs, of the State Department of Health. Interesting talks on health subjects were given at Wilton and Jay, North Jay and East Wilton.

A new departure, and one worthwhile, was a chest clinic provided for by the nursing service and by the Maine Public Health Association in Septem-

ber. Thirty-eight patients registered at this clinic.

The big event of the year was the capture of the first prize in the Booster's Carnival. The car was filled with Wilton's Six-Point children and was daintily decorated to carry out and emphasize the Six-Point demonstration.

In conclusion, thanks are extended to the Nursing Committee for interest and support, Maine Public Health Association for supervision and direction of the program, and the Red Cross and local clubs for gifts, the merchants for discount on supplies, the citizens for individual gifts, of money and office equipment, and lastly the physicians and dentists who have so willingly worked to make the program a success.

Respectfully submitted,

N. BLANCHE RICHARDSON, R. N.,  
*South Franklin County  
Nursing Service.*

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### Report of Somerset County Nursing Service for 1928

To Theresa R. Anderson, R. N., Supervisor and Director, I hereby submit my report as a public health nurse for the current year.

The Somerset County Nursing Service was discontinued temporarily on April 30th, after only four months' service, because no funds were available with which to continue the work. From this date on, all calls for service in this county were taken care of through the staff field nurse of the Maine Public Health Association. It has always been the desire of the staff to resume this serv-

ice as soon as it will be possible again to raise a year's budget.

In spite of this depressing handicap, twenty-four towns in the county received some form of public health nursing during the year. Sixty days of school nursing have been given. The towns receiving this service were Athens, Brighton, Bingham, Caratunk, Cornville, Canaan, Detroit, Harmony, Hartland, Jackman, Long Pond, Moose River, New Portland, Norridgewock, Solon, The Forks, Rockwood and West Forks. Farm bureau programs have been given in Hartland, Fairfield, Solon, Madison, Norridgewock, Starks and New Portland.

The nurse was instrumental in organizing a dental clinic for the town of Rockwood. The schools and citizens raised the money to pay for the services of a dentist for two or three days, who came from Greenville to do this work.

A great deal of time and money was spent on one special family in Somerset County, which was conducive of good results. This family had been a town problem for many years, and it had cost the State of Maine more money for their support than any other state case. Through the nurse's efforts medical care at a sanatorium was provided, and also dental attention before entering sanatorium.

It is the earnest intention of the Nursing Committee and the Maine Public Health Association to start this service again in 1929.

Respectfully submitted,

BELLA C. DAVIS, R. N.,  
*Field Nurse, M. P. H. A.*



### Report of York County Nursing Service for 1928

To Theresa R. Anderson, R. N., Director and Supervisor, I hereby submit my report of the service for 1928.

The work for the year for the most part has been carried on by two nurses, Miss Edna Avery and Miss I. C. Johansen, R. N. Both nurses were admirably fitted to carry on the work, both by experience and training, and made it possible for York County to have the most satisfactory program it has ever had in any year. Miss Avery resigned the first of August, and Miss Johansen in September was given a year's leave of absence, and is serving as health nurse to the students at Farmington Normal School. Miss Katherine Ferguson took the position vacated by Miss Johansen on September 1st.

In this health program it has been nearly possible to approach an ideal in public health nursing, inasmuch as the nurses have been able to work more intensively with each town. Because of this fact, the nurse was able to give much more assistance in epidemics of communicable diseases. In Kennebunkport, during a severe epidemic of diphtheria, the nurse coöperated with the local health officer, taking 892 throat cultures, in an effort to locate the "carrier." Every morning for more than a month the nurse was in the town and at the schools, checking and watching the children in an effort to prevent a new outbreak.

The same type of service was also given in Cornish, when the scarlet fever epidemic broke out, and in other towns during epidemics of chicken pox, measles and mumps.

As a part of the school service, the nurses conducted classes in home hygiene for one period a week in two towns for the entire course. These nurses also coöperated in the "Early Diagnosis" Campaign, and also arranged programs with the Director of Social Hygiene of the State Department of Health to give talks to various high schools. Fifty programs on health were given before farm bureaus, clubs, and parent-teachers' meetings, and 52 patients had transportation provided for them by the nurse to physicians, sanatorium and hospitals.

Results of the school service is shown in the number of children who were checked up on the Six-Point Child Campaign, 1,435 children in York County securing health buttons last year. A month-to-month list of corrections which the children have done since the last visit of the nurse is always made. York County led all services for the year in the number of corrections secured, 264 corrections being made, of which the highest number were teeth and the second highest throat operations. A more detailed statistical report will be found elsewhere.

During the summer six Child Health Conferences were held. One of these conferences took the form of a "Better Baby Contest," and prizes were offered to the three babies obtaining the highest score on the scale of 1,000. One baby under one year of age scored 995.

The nurses have profited by attendance at the staff conferences and the supervisory visits which have come to the service from the Maine Public Health Association.

In conclusion, the nurse wishes to extend thanks to the members of the County Committee and interested friends

for assistance in meeting the various problems which are confronting your new nurse in this field.

Respectfully submitted,

KATHERINE T. FERGUSON, R. N.,  
*York County Nursing Service.*

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### **Report of Dexter Community Nursing Service for 1928**

To Theresa R. Anderson, R. N., Supervisor and Director, I hereby submit my report as a public health nurse for the current year.

Since taking up the work for this service I have tried to carry out the program of my predecessors, and make such additions as have been adopted at conference by the staff nurses of the Maine Public Health Association. These conferences are one of the benefits received by affiliation with the State Association. In doing rural work it is most essential that the nurse be in contact with other nurses doing public health nursing, that she may learn late methods, exchange experiences, and return with added zeal for her work. Five Staff Conferences have been attended, two meetings of the State Nurses' Association, a two-day teaching institute held by the Red Cross, and one Conference of Social Service Workers. One seal sale meeting was held in Dexter, with the Seal Sale Director from New York and Mrs. McGouldrick, Field Secretary for M. P. H. A., in charge. Nine local committee meetings were attended.

Statistical report of visits may be found in analysis of nursing services.

A large percentage of the miscellaneous visits were made in the interest of children, and on superintendents of schools, doctors, dentists, teachers, town officials, and others. Thirty-one home calls were made to talk over the defects of school children with parents. Several children were taken to specialists, one to dentist, and one little child was taken to the Children's Hospital in Portland for an operation, and later the nurse went to Portland and brought him home. One child, in whom the service had interested the Shriners, went to their hospital in Springfield, Mass., for treatment and returned much improved.

We are known as an "educational institution," our ultimate aim being to teach the importance of regular health examinations, that we may correct defects and strengthen weaknesses as found; and to teach the observance of correct health habits, thus preventing illness, with the result—Maine *will* be the healthiest state, and we will all belong to the Three Quarter Century Club!

We assisted in the "Early Diagnosis" Campaign last spring by distributing 850 pieces of literature on tuberculosis, and a film on this subject was shown two nights at the local theatre. Following this, a long step in advance was made by the establishment of yearly chest clinics. The clinic this year was held at the Plummer Memorial Hospital, December 3rd. Forty-six exami-

nations were made on 38 patients. Dr. Shaw, of Fairfield Sanatorium, examined for tuberculosis, Dr. Drake, of Portland, did the heart examinations, and Dr. Warren, of Portland, did the asthma tests. Diagnosis of pulmonary tuberculosis or suspected, 11, with healed lesion, 1, defective hearts, 9. Of the 16 asthma tests, 11 showed reaction.

A Chase doll has been purchased to use in teaching child care to girls. Two classes in home nursing were held, one farm bureau demonstration given, two days at Exeter Fair, where we coöperated with Miss Noble, county nurse, in conducting a first-aid and rest room, also an exhibition of health posters made in schools, and one day at Dexter Athletic Fair.

Considerable time has been spent in assisting the teachers to formulate a program of health teaching for the schools. This has been more or less of an experiment this year, but we hope to have a regular program for each grade next year.

Nearly every grade has made health posters. These were used for exhibition Child Health Day, as well as at Exeter Fair, where one won second prize. Others were sent to Augusta to the State Christmas Seal Poster Contest. Paul Cleaves won first prize in this contest.

Many grades are using the Modern Health Crusade chore cards for their health habit training. The fifth grade at Spring Street School won a National Pennant for keeping these chores last school year, and we are proud to know

that we did our bit to help Maine come first in the National Crusade Tournament for 1927-1928.

The Clean-Mouth Campaign and Six- and Seven-Point Child activity have been stressed, with fine results.

My report of school inspection is in the statistical report.

The service was closed for seven weeks last summer, and the nurse given leave of absence after her regular vacation, this report covering nine months' active service.

The purchase of a new car has made the work much more efficient, enabling the nurse to get to outside districts and to accomplish much more in town.

Preparations for the dental clinics are nearly complete, and we also hope to examine each pre-school child before school opens next fall, so that parents may have defects corrected before entering school. It is planned to visit parents to whom notices of defects were sent to seek their coöperation in having these defects corrected.

Garland has been given their usual service and Ripley was admitted this year.

In closing, thanks are extended to all those who have helped to make the work successful—the doctors and dentists who have willingly given service and advice; the staff of the Plummer Memorial Hospital who have cheerfully coöperated in the bedside work during the absence of the nurse at the clinic; and in purchasing supplies; the manual training and commercial departments of the high school; the Sunshine Club,



Good Will Society and Red Cross for assisting patients referred to them; to Hale-Daggett Company for rent, and J. P. Rand for light; also the many lodges, societies and individuals that have contributed.

Respectfully submitted,

OLIVE BONSEY, R. N.,

*Dexter Community Nursing Service.*

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### **Report of Flanders Bay Nursing Service for 1928**

To Theresa R. Anderson, R. N., Supervisor and Director, I hereby submit my report as a Public Health Nurse for the current year.

The major part of the nursing service has been carried on by Mrs. Minerva Holt, R. N., who will be released in the early months of 1929 to take a post-graduate course in public health nursing.

This nursing service covers the towns of Sorrento, East Sullivan, Gouldsboro and Winter Harbor. Local representatives of all towns serve on the Nursing Committee. A very substantial portion of the finances comes through the efforts of summer residents, who through various benefits each year make possible a continuance of this service. Christmas seals make a contribution, also the fees which the nurse collects for nursing care from the patients who are able to pay, and which the nurse turns over to the local treasurer.

Special effort is made to urge the mother to secure correction of physical defects with the child who is about to enter school in the fall. Visits are also made to patients ill with tuberculosis,

for the purpose of giving bedside care and to teach the patient and family the necessary precautions. Many visits are also made in an attempt to check the spread of the other so-called communicable diseases.

Nursing care has been given in surgical, obstetrical and general cases. The program of the service also included conferences with the mothers of babies and children of pre-school age.

Special phases of the work this year have been the coöperation of Mrs. Holt with the local health officers in a search to find the cause of the occasional cases of typhoid fever in Winter Harbor. After much preliminary work and sending of more than 50 specimens for examination to the State Laboratory, a cause was found in a "carrier," or one who has recovered from the disease but continues to discharge the organism. It took unremitting effort and concentration on this "carrier" in order to impress her with the necessity of care in the disposal of excreta and care of dishes in the home.

An opportunity this year was provided for these towns to attend a county clinic on chest conditions in Ellsworth. This coming year smaller clinics will be held in the immediate locality.

In conclusion, the nurse expresses great appreciation to the members of her committee, the generous summer residents of this locality, the medical profession and the State Association for assistance and encouragement in meeting various problems which come to the nurse in this work.

Respectfully submitted,

BELLA C. DAVIS, R. N.,

*Acting Public Health Nurse  
Flanders Bay Nursing Service.*

### Report of Norway Nursing Service

To Theresa R. Anderson, R. N., Supervisor and Director. I hereby submit my annual report for year ending 1928, for Norway Community Nursing Service.

The nursing service was carried on by Miss Bella C. Davis the first of the year. Miss Davis resigned in April, but remained with the service until July, when another nurse was secured.

The service is supported by an appropriation by the town, the sale of Christmas health seals and the sum received by the nurse for calls to sick patients.

The past year 785 calls have been made by the nurse. These visits were for the purpose of caring for sick patients, mothers with new babies, or to secure the coöperation of parents to have defects corrected in school children. Sixty-two Well Baby Conferences were held, at which 510 visits were made for weighing.

In the schools individual inspection was made of all the pupils. In the grades health talks were given, drills and rhymes taught. In the high school home hygiene and care of the sick was made an elective course, with credit given those who took it. Eight of the girls took the course, and it is hoped that we may have a larger class the following year. Two adult classes were also held during the year.

The statistical report may be found in the summary of statistics.

In closing, the nurse and her committee wish to extend their grateful appreciation to the doctors who will-

ingly give professional advice to patients in need, to the dentists for their time and services given, to Mrs. Victorine Blanchard, the Kiwanis Club and Red Cross for their financial assistance and donations to the service.

Respectfully submitted,

EMMA MCK. ROBINSON, R. N.,

*Norway Nursing Service.*

### Report of Southwest Harbor-Tremont Nursing Service for 1928

To Theresa R. Anderson, R. N., Supervisor and Director. I hereby submit my annual report for the year ending 1928 for Southwest Harbor-Tremont Service.

Work was started in Southwest Harbor September 17, 1928, and it is only of the beginning that I can make a report. An inspection was given to each pupil at the beginning of the year. Inspections are made in reference to home conditions, skin diseases, communicable diseases and to detect early symptoms of any disease, for "Whatever has to do with a sick child has to do with the teacher"; "No one can teach a sick child. It cannot be done." The building, the equipment, the books, the teacher are all wasted on the sick child. A sound mind rarely dwells in a sick body.

The nurse's first thought is the control of the communicable diseases. All work must give place to an epidemic. The nurse goes to the school, helps establish a quarantine and keeps the children in school under her supervision, excluding the suspects until their incubation period is passed. Value of this careful checking-up of school children was shown in this winter's measles epidemic, which

did not assume such grave proportions as in some other parts of the county.

Statistics for this new service may be found in the table.

Free vaccination was offered by the Health Department, and 115 school children were vaccinated by Drs. Neal and Phillips.

Pins have been given to some Six-Point children. These six points, if not corrected, may seriously hamper a child's progress in school and may produce a harmful lasting effect on health later in adult life. There will be more pins after the spring check-up.

Miss Buck, of the Child Health Education Service, introduced the Modern Health Crusade, which is the Health Project included in the physical education course outlined by the State Department of Education. The pupil or class performing simple daily health chores is thus enabled to do better school work.

Home hygiene classes were started with the senior and junior classes of the high school, with the aim to develop in the student an appreciation for health and a desire to build those habits which will safeguard it, both in the community as well as at home, and to give a basic understanding for those who may wish to enter schools of nursing.

Citizens are cordially invited to visit these classes, which are held at the nurse's office, Thursday of each week, from 10.15 to 11.45 A. M.

In conclusion, the nurse wishes to extend grateful appreciation to all who have helped in the development of the nursing program.

Respectfully submitted,

BERTHA P. LAMB, R. N.,

*Southwest Harbor-Tremont  
Nursing Service.*

### **Report of Skowhegan Nursing Service for 1928**

To Theresa R. Anderson, R. N., Supervisor and Director, I hereby submit my annual report for year ending 1928, for Skowhegan Community Nursing Service.

The nursing service since May 1, 1928, has been sponsored by the Skowhegan Community Nursing Service, a local organization affiliated with the Maine Public Health Association. The local committee is made up of the Board of Selectmen, two representatives from the Skowhegan Women's Club, two representatives from the Skowhegan Sorosis Club, one from the Town Improvement Society and one from the Business and Professional Women's Club.

The budget to carry on this valuable work is derived from several sources. Money raised by town appropriation, gifts from the several clubs and societies, fees paid by the Metropolitan Life Insurance Company for care of policyholders entitled to such service, fees paid by individual patients for care, and returns from the sale of Christmas seals and health bonds.

The Skowhegan Community Nursing Service offers a general nursing service, consisting of pre-natal, post-partum, medical, surgical and tuberculosis nursing to all residents in need of or desiring such service. While all calls are answered, actual nursing care or special treatments are given only under the direction of the attending physician.

Health advisory service for the promotion of health and prevention of illness is given in all homes visited and instructions for the care of the patient during the absence of the nurse. Pre-



vention of illness and health teaching have become such important factors in the present-day nursing work that too much stress cannot be laid on this phase of the work.

In order to reach some of the younger citizens, a weekly Well Baby Conference was established in July, and every Wednesday, between the hours of 2.00 and 4.00 P. M., many little ones and their mothers may be found at the office of the nurse in the Municipal Building. Here a check-up is made on their growth and development, and many simple but often perplexing problems are solved for the mother at these conferences. No charge is made for this service and all little ones are most welcome.

The importance of keeping up with the modern developments in medicine and nursing cannot be too strongly emphasized. This the nurse endeavors to do through reading and by attending nursing meetings and conventions whenever possible. To this end staff conferences of the nurses of the Maine Public Health Association are held several times during the year.

In summarizing the duties of the nurse it will be seen that they are many and varied:

She teaches health.

She gives skilled nursing care to the sick in their homes on a visit basis.

She teaches someone in the home to give necessary care between her visits.

She teaches personal hygiene, cleanliness and prevention of disease.

She advises expectant mothers in the matters of hygiene and urges them to put themselves under the care of a physician early.

She gives maternity care to mothers and new babies.

She teaches mothers to care for their babies by demonstration in the home.

She teaches mothers the value of proper feeding and periodic check-up on weight and growth through the Well Baby Conferences.

She gives nursing care to Metropolitan policyholders entitled to such care.

She does not prescribe, but works under the direction of the family physician.

She collects fees from patients able to pay, and these fees are turned over to the treasurer.

Since May 1, 1928, the nurse has made 1,040 visits to the homes of 126 patients, and 23 Well Baby Conferences have been held, with an attendance of 84 babies.

Special features which have been carried on by, or at which the nurse has assisted, include the Child Health Day program held in May at the Community House, with a special health exhibit, motion pictures and health speakers.

Assistance was also given at the first-aid tent and rest room conducted at the Skowhegan Fair by the Red Cross nurse and the Metropolitan Life Insurance Company.

The statistical report may be found in table of statistics.

In closing, the nurse and her committee wish to extend their grateful appreciation to the doctors who willingly give professional advice to patients in need, to the Skowhegan Sorosis, the Women's Club, the Business and Professional Women's Club and the Town Improvement Society for financial assistance, to the Federated Church for the loan of screens, and to the many individuals who have contributed toward the support of this work.

Respectfully submitted,

JULIA G. WILSON, R. N.,  
*Skowhegan Community Nursing  
Service.*

## Report of the Cumberland County Public Health Association

Jan., 1928, to Jan., 1929

The work of the Cumberland County Public Health Association has more than doubled itself this past year, as can be seen plainly even in the school report this year. It was necessary to take on another nurse permanently, as well as two additional part-time nurses, who were with the Association during the school inspection. The work of the year has gone on smoothly, and with the increase in the sale of the Christmas seals much more follow-up work among the needy was accomplished.

We are very sorry to say that Miss Mary G. Price, who has been with us for six years, has resigned and is at present in New York doing private nursing. However, we have in her place Mrs. Katherine Dougherty, who came to us in July with splendid recommendations and well prepared for the work in having had special training in public health nursing at Simmons College.

The following report will show the rapid strides with which the work has gone on.

### REPORT OF MOBILE DENTAL CLINIC

Clinic held in four towns, nine schools. Total number of days, 30. Report of work accomplished:

Pupils treated,	291
Cleanings,	291
Silver fillings,	537
Cement fillings,	60

Teeth extracted—gas,	334
Teeth extracted—novocaine,	92

The estimate of the above work would be \$2,267.00. The dentist's fee was \$533.00.

The C. C. P. H. A. furnished all the materials used, the use of the outfit, and the service of their nurse to assist the dentist, and the towns or some interested organization paid the dentist's fee.

Samples of tooth paste were given the children, and toothbrushes were sold for five cents each.

Many thousand pieces of health literature and health booklets were given to the children, thus allowing much valuable information to enter the homes, which perhaps were benefited greatly by the knowledge they received in this way.

### SCHOOL INSPECTION

The following is the report of the school inspection in these towns: Baldwin, Cape Elizabeth, Casco, Cumberland, Falmouth, Freeport, Gorham, Harpswell, North Yarmouth, Otisfield, Pownal, Raymond, Scarborough, Sebago, Standish and Yarmouth.

Visited and inspected the pupils of 143 schools, 233 rooms, as follows:

No. pupils enrolled,	5,115
No. pupils examined,	4,710
No. pupils 7% or more under weight,	1,015
No. pupils 20% or more over weight,	148
No. pupils with defective vision,	579
No. pupils with defective hearing,	52

No. pupils with defective teeth,	2,877	Old patients,	110
No. pupils with enlarged tonsils,	1,023	Fillings,	72
No. pupils with pediculosis,	40	Extractions,	92
No. pupils with defects,	3,753	Examinations,	25
No. pupils without defects,	1,063	Treatments,	18
No. notices sent parents,	3,602	*Once a week Thursday morning.	
No. defects corrected,	845	PRE-SCHOOL CLINIC	
No. pupils excluded from school,	52	Attendance,	38
Pediculosis,	40	Defects,	5
Skin disease,	12	Corrections,	5
Health talks given pupils,	708	CHILD WELFARE	

Much assistance has been rendered by the teachers in bringing up the health standard, especially among the under weight children, by preparing hot noon lunches and stressing the proper ways to live when in the home.

Ten girls were sent to Camp Kona-way through the generosity of the Association and the Y. W. C. A., each giving \$100.00. This camp is located at Prince's Point, Yarmouth, and the girls were selected from the various towns throughout the county. They spent two happy weeks there. Many of the girls had an opportunity which otherwise they might never have had. The ages of the girls were between twelve and eighteen, and they were sent this year from Gorham, Yarmouth, Portland and Scarborough.

Respectfully submitted,  
KATHERINE M. DOUGHERTY, R. N.,  
*Cumb. Co. Public Health Ass'n.*

#### **Gardiner Health Centre For Year 1928**

##### **DENTAL CLINICS**

No. of clinics,*	22
New patients,	50

Number of conferences,	41
Attendance,	461
New,	56
Old,	405
Children examined by doctor,	874
Children inspected by nurse,	498
Children partially inspected by nurse,	195
Children with defects,	228
Children having defects corrected,	199
Home visits,	255
School visits,	838
Class talks,	385

Weighed 5,038. About 20% of children under weight.

This does not include work in the districts.

Respectfully submitted,  
KATHERINE GALVIN, R. N.,  
*Gardiner Public Health Association.*

#### **Report of Nurse of Washington County Anti-Tuberculosis Association**

**Jan. 1, 1928, to Dec. 31, 1928**

No. schools visited,	177
No. pupils enrolled,	4,987
No. individual pupils inspected,	4,748



No. pupils defective,	2,532
No. without defects,	2,216
No. with defects corrected,	1,297
No. notices to parents,	1,987
No. homes visited to school children,	598
No. class talks,	112
No. with defective teeth,	1,594
No. with enlarged tonsils,	252
No. under weight,	400
No. visits to patients,	300
No. patients taken to sanatorium,	16
No. new patients for year,	15
No. patients died,	7
No. patients improved,	5
Conferences and interviews:	
Selection,	38
School superintendent,	16
School teachers,	97
Physicians,	114
Talks given (number):	
At Grange meetings,	12
Home nursing classes,	14

EDNA COCHRANE, R. N.,  
*County Nurse.*

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# THE JOURNAL

OF THE

## Maine Medical Association

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### \*PRESIDENT'S ADDRESS

By FRANK Y. GILBERT, M. D., Portland, Me.

When I began the practice of medicine, in 1903, there were two state medical associations in Maine, viz., "The Maine Medical Association," with a membership of about 400 members, meeting once a year for scientific and social purposes, with annual dues of \$2.00, and the "Maine Academy of Medicine and Science," with nearly the same membership, meeting two or more times a year for scientific and social purposes, with annual dues of \$2.00. This later organization published a medical journal, and through exchanges and book reviews, built up a medical library of some 1,500 volumes.

As Secretary of the Maine Academy, I discussed the question with Dr. Holt, its founder, and some of the active members, of disbanding the Academy in favor of the Maine Medical Association, with the result that in 1908 it discontinued a long and valued service to the profession of Maine and turned a small fund, together with some 1,500 volumes, to the Maine Medical Association on the condition that the latter Association start

a medical journal and continue the library.

The question of a medical journal was presented to the House of Delegates in 1909 and no action taken, but the session of 1910 provided a committee of five, with power to start a state medical journal, and provided funds not to exceed \$700.00, the estimated cost of printing and mailing the transactions.

This represented an effort to give an increased value to our membership. The first issue of the JOURNAL came out in December, 1910, and has never missed an issue during the years that followed, even during the war, when some journals were discontinued. Although given the title of "Editor-in-Chief" from the start, for the purpose of putting the JOURNAL on its feet, I assumed the title of "Managing Editor" and carried on this work over a period of sixteen years, when I assumed the title of "Editor-in-Chief." While there have been the usual unpleasant situations arising, I can now state, in laying aside my long period of duty, that my greatest and perhaps sole recom-

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\*Read before the annual meeting of the Maine Medical Association, at Poland Springs, June 18, 1929.



pense lies in the feeling that I have given liberally of my leisure hours to matters of vital interest to the medical profession of Maine. During these years, I have never used the MAINE MEDICAL JOURNAL, through the publication of papers or case reports, or other ways to advertise to the profession my own specialty in medicine and surgery. It is my firm belief that when any man seeks to advance his own ambition through a position of trust, he should be replaced by some more efficient member, owing to the simple fact that so long as such a man gauges his acts on his own personal gain, he will never see the actual needs of the whole group or study any problem in a big, broad way. I have always felt that this represented the first real effort to add some economic value to the membership of the state society.

While the duties of the editor keep him in constant contact with all the activities of the state and more or less of the county units, he must be in constant contact with all the activities of the other states and national groups, both lay and medical.

During my early years, the American Medical Association entertained the state editors and secretaries with a banquet on the Monday night preceding the annual session. These meetings were devoted to a discussion of problems relating to our twenty odd state medical journals, but also extended to all problems of organization work. It was at the request of the state editors that the American Medical Association provided the Co-operative Medical Advertising Bureau to care for the national advertising of the state journals, a service which has proven of great value to small journals.

It was from these conferences that I became interested in medical defense and

endeavored to have the Maine Medical Association adopt it. In 1912, after visiting most of the counties and receiving favorable action, it was presented to the state meeting and laid on the table by one member, on the ground that he did not have a sufficiently clear idea of what it was all about.

It then remained for Dr. Spalding to again bring this matter of medical defense before the House of Delegates in 1917, and it was finally adopted in 1920, and has proven the greatest step towards creating a definite economic value for our dues. From medical defense, we passed on to group insurance, whereby the members can secure defense insurance at considerably less than half the cost had we gone on without medical defense.

Let me review the rather stormy course of medical defense, as it has an important bearing on the question of a full-time Secretary. It was discussed and endorsed by the majority of county units in 1911-12, discussed in the House of Delegates in 1912 and referred to the general session, where it was killed. It was then introduced into the House of Delegates in 1917 by Dr. Spalding, who gave a great deal of thought and study to this problem. He finally submitted a definite plan of defense in 1920, which was adopted by the House of Delegates and confirmed by the general session.

The Defense Committee, headed by Ex-President Hardy, felt that medical defense did not go far enough, and finally worked the group insurance plan, which has proven an extremely valuable unit in state and county membership.

In 1926, medical defense was discontinued—nine years from the time this measure was first introduced to its adoption—and this was due to the lack of

having some one individual who had the time to work out some concrete plan.

Had we not adopted medical defense, we would undoubtedly have been in the position of a neighboring state, where the defense premiums went as high as \$75.00 for the same policy now enjoyed by our members for \$16.50. This certainly indicates that membership in the Maine Medical Association has a very definite economic value.

The history of our legislative efforts has shown a total lack of preparation, in view of the fact that we have appointed a committee of practicing physicians, who have very little time or opportunity to study this problem. Consequently, we always approach a legislative session with a program which is incomplete or unsatisfactory to the majority. What a valuable aid a full-time Secretary would be to this committee by bringing to it the definite knowledge and experiences of the legislative problems of all the other states and a summary or analysis of the various laws by the Legal Committee of the American Medical Association and other national bodies.

If you will bear in mind that, up to 1918, the state dues remained at \$2.00 and at that time were raised to \$4.00, you can readily see that the monetary value was in excess of the dues.

For the past few years, an effort has been made to secure group accident and health insurance, with a saving of at least 10%, also automobile liability insurance, and I feel quite sure that one or both of these will be in effect before another year or two, thus adding again to the economic value of our membership.

It is possible to purchase automobile equipment by the group method, thereby securing still further saving, and so one could go on with all sorts of possibilities.

In a conference with the State Librarian, Mr. Dunnack, we are assured that the state will establish a medical library as a part of the new extension, providing the Maine Medical Association will appoint a Library Committee to work jointly with him. This will give to our members a circulating medical library, through which they can obtain not only books and reference matters in the library, but through the state library we can secure books and reference material from all available sources in this country.

So far, I have tried to place before you the various measures, some proven and others possible, whereby one's membership has a definite economic value far beyond the proposed increase in dues, but we must first bear in mind that none of this is possible without organization. Let us look, if you will, to the present set-up.

First, we have the county medical society, organized for the following purposes, viz.: To promote the science and art of medicine, the protection of public health, and the betterment of the medical profession; and to unite with similar county organizations to form the Maine Medical and the American Medical Associations.

The county unit has stated meetings, where scientific papers are read, cases reported, clinics conducted, and the members given an opportunity to renew their pleasant friendships. The membership of the fifteen county units constitutes the membership of the Maine Medical Association, and its purposes are the same as the county units, but owing to the larger field there is need of vastly more standing committees to study into the various problems constantly confronting the medical profession.

The House of Delegates, or the legislative body of the state society, is made up on a ratio of one delegate to every twenty-five members, or a fraction thereof, of the county medical society. These delegates are elected by the county medical society to represent it in the House of Delegates of the Maine Medical Association, and if this latter body is to function as it should, all matters pending or to be discussed should first be presented to the county units and their delegates instructed as to the action they wish taken on any question presented to the House of Delegates of the state association.

Too often matters are referred back to the county units for full discussion, and when the delegates convene a year later, only a few counties have taken any action or even considered the matter. If we study this question purely from a business and administrative point of view, one can readily realize the importance of selecting these delegates very carefully. They should be men who have shown interest in their county association and willing to work. The Secretary of each county unit should always serve as a delegate, as he is in constant touch with the work of his county society and will naturally be of more value to his society and the state association. Any man who has served as Secretary has a good background to become a valuable member of the House of Delegates of the state group.

The most important single factor is a liaison officer, who must have complete knowledge of all phases of any proposed question and be always at the call of the county units and ready to place before them all available data necessary to arrive at some conclusion.

The last American Medical Association directory shows that Maine has

1,029 physicians, with about 800 as members of the state society. About 760 are active, and the rest are honorary members.

As we turn to the American Medical Association we find that the 800 membership of the Maine Medical Association joins with the membership of all states to make up the national group in the same way that the county membership constitutes the state association. Here, again, we find the House of Delegates is the legislative body, and its membership is made up solely of delegates elected by the state associations. While the delegate to the American Medical Association must have been a fellow of the American Medical Association for at least two years prior to his election, the membership of the state association sending him are all members of the American Medical Association, and need not qualify as fellows to vote on their delegates.

Here, again, the House of Delegates as the legislative body determines the policies of the American Medical Association, as is true in the state association.

Before discussing the problems in Maine, let me give you a brief summary of the activities of the national group, and as I come back to the state activities, note the similarity. There is a Board of Trustees, a Judicial Council, Council on Medical Education and Hospitals, Council on Scientific Assembly, Council of Pharmacy and Chemistry, Council of Physical Therapy, Committee on Scientific Exhibits, Bureau of Legal Medicine and Legislation, Bureau of Health and Public Instruction, Bureau of Investigation.

The physicians serving in these various bodies are selected for their training and knowledge in their particular field of activity, and the fund of data avail-



able to the state and county units from these sources is of inestimable value. There are also sixteen different sections, representing every specialty in medicine.

In addition to the *Journal of the American Medical Association* the following special publications are published as a part of the work of the American Medical Association to the profession:

*Archives of Dermatology and Syphilology*

*Archives of Surgery*

*Archives of Otolaryngology*

*Archives of Internal Medicine*

*American Journal of Diseases of Children*

*Archives of Neurology and Psychopathy*

*Archives of Pathology and Laboratory Medicine,*

and for the lay public, we have that most valuable publication, *Hygeia*, which carries a message of extreme value to the general public.

Time will not permit my going into detail on any of these activities, but merely point out to you the unlimited amount of information and data which is available to the state and county units. A full-time Secretary, as a member of the House of Delegates of the American Medical Association, is to my mind the only answer.

Turning back to the state association, we have a Council similar to the trustees of the national group and the following standing committees:

Scientific Committee

Legislative Committee

Venereal Diseases Committee

Cancer Committee

Committee on Medical Education and Hospitals

Committee on Medical Defense

Committee on Public Relations

Neurologist

This is a very creditable array of activities, and the membership of these various committees represents a group of men who are, for the most part, willing to do something, but on the whole they do not know what their job is supposed to be nor how to carry on.

Your Secretary, apart from the secretarial duties of his office, has devoted a large amount of time in the interest of the profession as secretary of the Defense Committee, also served on the New England Medical Council, the National House of Delegates and the Maine Public Health Association. That is certainly enough to expect of any medical man who has to practice medicine for a living, and the solution to our difficulty must be found elsewhere.

Even a superficial study of the situation will convince one of the need of some more concrete co-ordination of the activities of the state group and to bring them down to the county units for consideration, so that when they send their delegates to the state meeting they will know the need and desires of their county societies.

Suppose a given committee had a definite individual who could give them all the information in regard to previous work done by other committees studying this problem and could secure through him from the American Medical Association headquarters all data available on the given question, how much more interesting the work would be to the committee, and how much more valuable would be the results of their work to the association.

Such an individual would work with all the committees, the Council and the County Secretaries. He would be in constant touch with the State Department of Health, the Maine Public Health Association and The State Board of

Medical Registration, standing ready to co-operate at all times and bring back to the state and county associations the true facts in regard to these departments which the profession should know. He would co-ordinate, guide and direct all medical activities, and finally, as editor of the JOURNAL, would have a direct means of reaching the profession and keeping them informed of the work of his office.

There has always been a considerable amount of criticism as to the way the state and national associations are run, but when one comes to realize that the county medical society is the basic unit of organization of the state and national body, then any failure of the latter bodies to function properly is due to the failure of the county units to function in a proper manner. In other words, if each county medical society would devote the necessary time in their meetings to the presentation and discussion of matters of interest to the profession and public, and carefully select and instruct their delegates to the Maine Medical Association, the first step will be taken toward a business administration of the state society. The same policy should apply to the state delegates to the American Medical Association. In order to accomplish this result, it will be necessary to have a full-time man who must thoroughly understand the medical profession, its ideals and aims, and be thoroughly conversant with all medical activities within and without the state, in order to advise and direct the activities within the state.

What are the problems under consideration of the various standing committees of the Maine Medical Association? Briefly, they are as follows:

1. In what manner and to what extent can a true message as regards vene-

real disease be given by the profession to the public?

2. In what manner and to what extent should the educational campaign on cancer go from the profession to the lay public?

3. Medical education and hospitals. These two problems have been before the profession and public for many years and a great deal of time and study devoted to them, as shown by the vast amount of reports and literature available.

4. Public relations. (a) What are the duties or obligations of the profession so far as the enactment and enforcement of laws and regulations to safeguard the health of the public. (b) An educational campaign which will not only convey to the public the absolute need for such laws and regulations in the interest of the public health of the whole community, but will carry on under the direction of the profession a "Keep Well" Campaign.

5. Medical defense. Little need be said on this very important measure, as its importance is well recognized.

6. Medical legislation. While this title conveys a broad field, by usage in Maine, it is related only to problems justly belonging to the Board of Medical Registration, viz., *cult* legislation. Had the board come to our committee with some carefully worked-out program, there would never have been the confusion of a year ago. Some one should devote considerable time and study to the problem.

7. The New England Medical Council represents a very sincere effort to carefully study the problems enumerated above, and find, if possible, some solution in so far as they involve the six New England States.

In addition to this, we send delegates

to the American Medical Association, New England States, and to the National Medical Council.

During the past two years I have sat in numerous conferences, and talked with officers, members of the Council and physicians actively interested in one or more problems enumerated above. The diversity of opinions on any given problem readily convinces one of the fact that such opinions are not based on a very careful survey of the entire problem, but of some specific phase in which any one individual was particularly interested. The simple fact is that no practicing physician can devote the time necessary to obtain a comprehensive survey of any one of these problems, but let any physician devote his entire time to these problems, as suggested in a full-time Secretary, he will have ample time and opportunity to become reasonably conversant with them all in a short period of time, and as years go on he will become a very valuable man to organized medicine in Maine. His position so far as the public is concerned will be similar to that of a full-time physician in any branch of government work.

The question has been frequently asked as to whether a layman can properly function under guidance of the Council. Such an arrangement would be better than our present method but would not aim toward maximum efficiency, for the simple reason that a layman must depend on some one or more medical men for guidance as to the proper interpretation of medical matters, and unfortunately medical men differ to a very large degree on questions of medical ethics and the relationship of the profession to the public. He must subordinate his activities to the Council to a much greater degree and is handicapped in developing himself into a valu-

able Secretary. In the army a man was given a job and he was expected to make good; and so here, a man must have a pretty free rein to develop in the proper manner.

It is a significant fact that the full-time State Secretaries as medical men who were active in the national field twenty years ago are valuable members in the National House of Delegates today, while their medical activities in their state show the value of their guidance.

My own idea of a full-time Secretary is that he should be a medical man who has had a few years in active practice, so that he can better visualize the mental attitude of the average physician. He should study the physician individually and collectively in the county units, as well as the public reaction to him. He should be familiar with the work of the State Department of Health, the State Board of Medical Registration, the Maine Public Health Association, and all other bodies interested in or depending on the profession to carry on their work. He should be a member of the House of Delegates of the state and national bodies, so as to be constantly in touch with all medical activities. He should be a member of the New England Medical Council, and finally editor of the medical journal.

Given this background, a medical man can develop a far-reaching program, whereas the lay Secretary cannot be a member of the House of Delegates in either the state or national bodies, nor the New England Medical Council, nor is he in a position to carry on editorially in the journal.

In conclusion, I would like to enumerate the benefits derived from your membership, viz.: The literary, scientific and clinical programs of the Amer-



ican Medical Association, the Maine Medical Association, one's county society, THE JOURNAL OF THE MAINE MEDICAL ASSOCIATION, group medical defense insurance, and the possibility of securing group accident and health insurance, group auto accident insurance and the circulating medical library.

My final hope is that you will consider the question solely from a business and economic standpoint, where you invest so much money in your dues and expect

a dividend in return. Considered from this point of view, you can be assured of a very substantial dividend along the lines suggested.

In closing, I can only express my keen appreciation of the high honor which was conferred upon me the past two years and sincerely hope that in completing my term of office I have added my little bit to that of my predecessors to aid the profession and the public, which we always aim to serve.

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## MAINE PUBLIC HEALTH ASSOCIATION

### State Department of Health

At the present time there are forty-eight full-time employees in the State Department of Health, and during the summer months about twelve more are added to the Division of Sanitary Engineering, to take care of the extra work necessitated by the licensing of recreational camps and roadside eating and lodging places.

Our District Health Officers, under whose supervision the field work of the department is done, make many thousand calls each year on doctors, nurses, municipal officers and school authorities, make many examinations of school children, and give many lectures on public health before different organizations, such as Kiwanis, Rotary and Lions Clubs, women's clubs, parent-teachers' associations, etc. Many hundred complaints are looked into, including nuisances and other unsanitary conditions.

Over 30,000 vital statistic records are handled by the Division of Vital Statistics, and, as there are many errors and omissions on some of these records,

it means a large amount of correspondence to straighten these records out.

Preventable diseases—not only communicable, but otherwise—are looked into and investigated, and advice given in the latest methods of preventive medicine.

Many calls are made by the Director of the Division of Social Hygiene, in straightening out disputed questions in the control of venereal diseases, and many lectures are given, mostly illustrated with motion pictures, on social hygiene.

The Division of Dental Hygiene has done a large amount of work on mouth hygiene, examining hundreds of scholars in various schools of the state, most of the cases being referred to their family dentists for correction of defects.

The Division of Laboratories is constantly widening its activities, and during the last year has taken on the study of contagious abortion. Now, in the laboratory, all bloods which are sent in for widals, which must give a negative test, are tested for brucella abortus.

The work of the laboratory is constantly increasing, as you can see by the following report:

Brucella abortus,	298
Diphtheria,	3,410
Feces—Typhoid,	1,095
Feces—Paratyphoid A,	1,087
Feces—Paratyphoid B,	1,087
Gonorrhœa,	4,569
Rabies,	14
Tuberculosis,	1,739
Urine—Typhoid,	112
Urine—Paratyphoid A,	112
Urine—Paratyphoid B,	112
Vincent's angina,	466
Wassermann,	6,512
Widal—Typhoid,	560
Widal—Paratyphoid A,	126
Widal—Paratyphoid B,	377
Issues,	183

Miscellaneous (blood chemistry and other examinations), 794

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22,653

The Division of Sanitary Engineering is doing a tremendous amount of work, and the work has increased, as you can see by the following statement:

In 1921-22, 3,690 examinations were made of water supplies in the water laboratory, while in 1927-28, 16,467, an increase of 449%.

The work of the Division of Public Health Nursing and Child Hygiene is not less active than the other divisions, and we would have been able to do more work if we could have obtained the nurses to do it.

The following is a brief summary of the work accomplished:

No. health conferences for infants and pre-school children conducted by physicians,	85
No. infants and pre-school children registered,	1,374
No. infants and pre-school children examined,	1,027
No. conferences conducted by nurse only,	92
No. children inspected,	413
Total number visits to conferences,	1,820
No. defects found,	1,089
No. children having defects,	614
No. classes in infant care,	41
No. girls enrolled,	603
No. home visits (No. individuals counted only once),	8,674
No. pre-natal cases,	248
No. obstetrical cases,	13
No. post-natal cases,	45
No. infants (these do not include individuals visited in conferences),	1,122
No. pre-school children (these do not include those visited in conferences),	2,857
No. group demonstrations,	622
No. pieces literature distributed exclusive of pre-natal letters,	425,046
No. pre-natal letters,	1,313
No. individuals receiving nutrition instruction,	796
No. conferences with nutrition instruction,	22
No. children reached by conferences with nutrition instruction,	300
No. groups reached by nutrition instruction,	55

No. attendance at above groups,	1,500
No. talks given,	125
No. prenatals reached by letters and home visits,	1,561
No. counties where some maternity and infancy work has been done during year,	15

**Report of Work of American Red  
Cross in Public Health Work  
in Maine for the Year  
of 1928**

The American Red Cross has in Maine thirty chapters, which cover the entire territory of the state, these chapters varying in size and in many places having branches in smaller towns. Because the Red Cross was for many years interested in rural communities, it inaugurated, in 1912, a Town and Country Nursing Service, which aided the promotion in a few places of rural public health nursing, and from which grew the present Red Cross Public Health Nursing program. There are in Maine nineteen chapters or branches of chapters engaged in some form of public health nursing, either alone or in coöperation with official or other voluntary organizations. There are thirty-one nurses employed in this manner. At present only one chapter is attempting any county nursing service, although most services reach a large rural section, because they cover entire townships. Although recognizing the need and value of bedside work, and always trying to plan for it, the Red Cross has always fostered and stimulated the educational side of public health nursing. Consequently school nursing occupies a prominent place in the program of these nurses. In all but three of the services school nursing is being done. In two of these three the Red Cross previously employed school nurses and so well demonstrated their value that the school authorities are

carrying on the work themselves. During the year 16,644 school children were inspected. Through the Junior Red Cross in many schools the nurses and Red Cross officials are trying to help the teacher inculcate the ideal that in order to be happy one must be of service to others, and in order to be of service to others one must be healthy. Emphasis is laid on those rules of health which involve positive, not negative thought. There are 231 elementary and 11 high schools in Maine, with a membership of 24,943 students enrolled in Junior Red Cross.

Realizing that about 90% of all illnesses are taken care of in the home, the Red Cross has prepared a course in home hygiene and care of the sick, and this course has been taught to women and girls in Maine. One hundred eighty-six certificates were issued—only those receiving certificates who had reached a certain class average. The course does not try to train nurses, but simply to show the average mother or daughter how to care for members of her own family when chronically or mildly ill, in such a way that their comfort may be assured and other members of the family kept from acquiring that or other illness.

Recently, too, the nutrition program of the Red Cross has been attracting much interest, because people are beginning to realize that malnutrition is not confined to the poor alone. Two itinerant nutritionists and one full-time nutritionist have been employed by different chapters and a course in nutrition is being



given in another chapter (Lewiston) by a home economics teacher, who is also a qualified Red Cross nutritionist.

During the winter of 1927-1928 the need for a nurse on one of the isolated islands off the coast of Maine was felt so much that money was raised there and a request sent to the Red Cross for a public health nurse. Although it was not possible to find a public health nurse at that time, a graduate nurse was sent, with the result that this year the Red Cross and Seacoast Mission have jointly employed a fully qualified public health nurse on the itinerant basis for one year. She has been on this island since November and will stay through the winter, going to other isolated places later on. Her territory will cover several islands, in turn, and it is hoped that it will be possible to have her repeat her itinerary each year.

The Red Cross in Maine has not gone into the clinic problem very extensively alone. In several places there are regular baby clinics, and in coöperation with other agencies some chapters have held a few of other sorts. The Red Cross policy regarding clinics has been that they should be undertaken only where there is a pronounced need, where no other agency can meet that need, and where the medical profession approves.

Because so many deaths from accidents and drownings occur which are avoidable, the Red Cross courses in life saving and first aid have been popular in Maine. In the year of 1928, 1,062 certificates for satisfactory completion of the life saving course and passing of

rigid tests were given in Maine and 190 for first aid courses. These first aid courses are taught by physicians except for the very elementary ones, which are taught by instructors who have been prepared and approved by physicians. Like the home hygiene course, this is taught to the average person who finds it necessary to do something "until the doctor comes."

The Red Cross public health nursing program is not essentially different from that of any public health nursing organization. Bedside nursing occupies quite a place on the program, 54,653 visits having been made this year. Delivery service in emergencies, pre-natal and post-partum work are included, also infant welfare. Work with the pre-school child and the school child is carried on, also with tuberculosis patients. As in all public health nursing, there are many cases in which work of a social service nature is needed. While not claiming to be a social service worker, the nurse, with the advice of her committee, tried to arrange or refer such cases to the agencies prepared for such work, and where there is no such agency, does the best she can to adjust the situation.

The Red Cross in Maine has received coöperation from and coöperated with all other agencies in the state, both state-wide and local, both official and voluntary, and wishes to express to the medical profession of Maine, through its official organ, the MAINE MEDICAL JOURNAL, its appreciation of their assistance with many cases of many sorts, of their advice, and their support.

## NECROLOGY

### **Daniel McCann, Bangor, 1866-1929**

After attending a patient very early in the morning of May Day, Dr. McCann was stricken with heart disease whilst driving home in his motor car, and after it had run of itself into a vacant lot, he was found dead in his seat.

He was long connected with the Eastern Maine General Hospital, being on the medical staff at its foundation, then promoted to assistant surgeon, and finally he was senior surgeon at the time of his death. His career as a physician was marked by success in all that he attempted. His paper on the "History of the Penobscot County Medical Society," published in our March JOURNAL, is a model of its sort, and especially attractive in its accounts of former leading members. He was also a figure in the meetings of the county and of the state medical societies.

Born February 24, 1866, at Bangor, the son of James and Elizabeth Gillen McCann, he was educated in the public schools, and after studying medicine, obtained his doctorate at the Medical Department of the University of New York in 1889. He took post graduate courses abroad, particularly in the large hospitals of London and at the Rotunda in Dublin, Ireland.

He married Miss Mary Elizabeth Cole, daughter of John and Brigid Cole, of Woodstock, New Brunswick, and is survived by her, two daughters and three sons, one of whom, a most promising surgeon, is now connected with the famous hospital at Rochester, Minn.

The record of our late comrade is highly praiseworthy and exemplary, for his hospital work, and for his encouragement of medical literature and history.

J. A. S.

### **Dana Willis Fellows, Portland and Port Richmond, N. Y., 1847-1928**

Although Dr. Fellows did not practice medicine for any length of time after obtaining his medical degree at Bowdoin in 1877, he was greatly interested, for life, in the connection between diseases and malpositions of the teeth, and many general bodily ills. For that one reason, as well as for his abundant labors in dentistry, he deserves mention in our JOURNAL.

Born in Lincoln, August 14, 1847, the son of Nathaniel and Sarah Hatch Fellows, he was well educated in the schools and at Mattanawcook Academy. Soon after obtaining his degree in medicine he studied dentistry with Dr. Thomas Fillebrown, of Portland, professor of dentistry also at Harvard, and whilst thus connected he devoted much time to the publication of dental works by his superior, as well as writing essays of his own. Whilst thus engaged he found time to appear repeatedly before the legislature, and obtained, largely by his personal efforts, a State Board for Dental Registration, and over which he was supervisor for many years. Later on he practiced with Dr. Bacon, a veteran in dentistry. Dr. Fellows' "History of Dentistry in Maine" is a won-

derful collection of facts upon this topic, and is enriched with a very valuable set of biographical notices of leading dentists in the state from early days. He was also interested in natural history, including ferns, and botany as a whole, and was curator of the botanical department of the Portland Natural History Society.

Dr. Fellows married, first, Miss Mary Louise Niles, of Fort Kent, a lady widely interested in public affairs. After her death he left Portland, settled in New York, married there Miss Cora Butler, and is survived by her. After a brief illness, he died December 23, 1928, leaving the reputation of an unassuming man, yet proving always to be a leader in his chosen specialty.

J. A. S.

#### **Jarvis Belcher Woods, Bangor 1867-1929**

Twice a mayor of the City of Bangor, twice in the State Legislature, and long known as a politician in Maine, Dr. Woods, a skillful practitioner of high repute in diseases of the eye and ear and allied affections, died suddenly in his camp at Winterport, June 5, 1929. He had long been suffering from a nervous

breakdown from overwork, and was for that reason resting from his labors at the time of his death.

Born in Unity, March 29, 1867, the son of Alden L. and Caroline Belcher Woods, he was broadly educated in the public schools, at Somerset Academy, Castine Normal School, Bowdoin and Dartmouth, where he obtained his medical degree in 1895. His studies had been much interrupted from time to time, so that he was more than twenty-eight years of age when ready to practice medicine.

He settled first in Calais, and then in Robbinstown, where for seven years he also served as village postmaster. He then took post graduate courses and removed to Bangor in 1912 where he established himself for life in his chosen specialties. As a physician he served for a long time on the Bangor Board of Public Health, and in his attendance upon the county and state medical societies he spoke carefully and attractively when opportunities offered, but did not write many papers of his own.

June 24, 1895, directly after obtaining his degree, he married Miss Alice Morrison, of Farmington, and is survived by her and a daughter, a man and physician much regretted.

J. A. S.

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## **COUNTY NEWS AND NOTES**

### **Androscoggin County Medical Society**

The May meeting of the Androscoggin County Medical Society was held at the DeWitt Hotel on the 23rd, at 8.00 P. M., with Dr. A. W. Plummer presiding.

With no business to transact, the meeting moved quickly from the ban-

quet to the scientific program. Clinical cases were presented by Drs. Goodwin, Belevau, Scannell and Plummer, and then turned over to Dr. Myerson, of Boston, for clinical demonstration and discussion. These cases were of unusual interest and clearly demonstrated to fall in the following clinical group:



Raynaud's disease, neurosyphilis, multiple sclerosis and syringomyelia.

This session was followed by a paper on "Neurosyphilis," by Dr. Myerson, which clarified a problem of unusual interest and difficulty. A rising vote of thanks was accorded the guest of the evening at the close of the meeting.

Those present were: Drs. L. Dumont, G. Twaddle, C. A. Wyndham, J. Gottlieb, H. R. Miller, Geo. A. Schneider, W. G. Renwick, B. W. Russell, Wm. H. Chaffers, H. W. Garcelon, M. Brien, Thos. Croteau, J. W. Dadeucour, H. L. Gauvreau, C. H. Cunningham, Joseph W. Scannell, Wm. J. Fahey, John Sturgis, E. P. Goodwin, E. C. Higgins, E. Leathers, E. V. Call, E. Buker, Wm. L. Holt, A. W. Plummer, Henry Sprince, Abraham Myerson.

Respectfully submitted,

J. GOTTLIEB, *Secretary*.

### Oxford County Medical Association

The annual meeting of the Oxford County Medical Association was held at Bethel Inn, Bethel, Me., May 13, 1929.

At 5.30 P. M., a business meeting was held, which was presided over by the President, Dr. J. G. Littlefield, South Paris.

The following officers were elected:

President—Dr. J. A. MacDougall, Rumford.

Vice-President—Dr. O. L. Hanlon, Ridlonville.

Secretary and Treasurer—Dr. J. S. Sturtevant, Dixfield.

Censor for Three Years—Dr. D. M. Stewart, South Paris.

Censor for Two Years—Dr. H. A. Moody, Rumford.

Censor for One Year—Dr. E. M. McCarty, Rumford.

Delegates to Maine Medical Association—Dr. R. R. Tibbetts, Bethel; Dr. Wm. T. Rowe, Rumford. Alternates, Dr. J. A. Nile, Rumford; Dr. A. L. Stanwood, Andover.

Dr. W. B. Raymond, South Paris, was elected member of the Association.

At 6.30 P. M., the following members, with their ladies, enjoyed a banquet: Dr. J. A. Green, Rumford; Dr. W. L. Hasty, Norway; Dr. O. L. Hanlon, Ridlonville; Dr. R. E. Hubbard, Waterford; Dr. H. M. Howard, Rumford; Dr. E. Kay, West Paris; Dr. J. G. Littlefield, South Paris; Dr. C. W. Nelson, Norway; Dr. W. B. Raymond, South Paris; Dr. Wm. T. Rowe, Rumford; Dr. A. L. Stanwood, Andover; Dr. H. W. Stanwood, Rumford; Dr. I. W. Staples, Norway; Dr. D. M. Stewart, South Paris; Dr. J. S. Sturtevant, Dixfield; Dr. R. R. Tibbetts, Bethel; Dr. J. A. Thibodeau, Rumford; Dr. G. W. Twaddle, Bethel; Dr. I. H. Wight, Bethel.

Visitors: Dr. F. Y. Gilbert, Portland, President of the Maine Medical Association; Dr. John Sturgis, Auburn, Councilor of the Second District; Dr. and Mrs. E. P. Goodrich, Lewiston; Dr. and Mrs. Wallace Webber, Lewiston; Dr. W. Garcelon, Lewiston; Dr. D. Kendall, Augusta; Dr. D. Campbell Smyth, Boston; Dr. P. E. Meltzer, Boston.

At 7.30 P. M., very interesting and instructive papers were given by the

Boston physicians—lantern slide talk on "Bronchoscopy and Pneumography," by Dr. D. Campbell Smyth, Boston; a short talk on "Acute Upper Respiratory Infection in Children," by Dr. P. E. Meltzer, Boston.

J. S. STURTEVANT, M. D.,  
*Secretary.*

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## NOTICES

### World Conference of Workers for Crippled Children

ELYRIA, OHIO, July.

Systematic aid for crippled children in all parts of the world will result from discussions by internationally known scientists, educators, surgeons and others at the World Conference of Workers for Crippled Children at Geneva, Switzerland, July 28 through August 2, in the opinion of Edgar F. Allen, President of the International Society for Crippled Children. The revised conference programme, issued yesterday, shows that twenty-eight individuals, representing fourteen of the United States, and thirty-one representatives of eleven foreign countries will take an active part in the discussions at the forthcoming conference.

The chief purposes of the international conferences are to perfect a working plan whereby the activities of individuals and organizations identified with aiding crippled children may be co-ordinated, provide for the interchange of information on all phases of the problem and to permit workers from all parts of the world to meet each other personally.

The states to be represented are Mich-

igan, New York, Missouri, Ohio, Tennessee, Pennsylvania, Kentucky, California, Oklahoma, Wisconsin, Maryland, Massachusetts, Connecticut and Nebraska. England, Germany, Austria, Switzerland, Sweden, Canada, Czechoslovakia, Belgium, Holland and Norway are to be represented by official delegates. Mr. Allen pointed out that, in addition to the active participants, the conference will be attended by many other interested persons from various countries of the world.

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At the request of our Committee on Medical Scholarships I am writing to ask if you would be kind enough to give publicity to the fact that we are planning to offer a fellowship of \$1,500.00 providing for a year's graduate work to one of the younger physicians in the state who has had five or six years of practice. We hope to supplement the work we are trying to do through the Gareolon-Merritt scholarships by giving an opportunity to a man who has been in practice in Maine for a few years and who is thinking of changing his location, or who feels the need of being kept in touch with the newer thought in the profession, to take a year's study in one of the large cities or abroad. We feel that such a candidate would be glad to put something of his own funds into the purpose, and that consequently \$1,500.00 would be ample. Any candidate who would like to be considered should submit his name to me on or before August 1, 1929, with suitable testimonials.

I should be very glad if you would give this notice such publicity as you may deem advisable.

Cordially yours,

KENNETH C. M. SILLS.

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# THE JOURNAL

OF THE

## Maine Medical Association

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VOL. XX.

AUGUST, 1929

No. 8

### TRANSCRIPT OF PROCEEDINGS AT THE SEVENTY-SEVENTH ANNUAL MEETING OF THE MAINE MEDICAL ASSOCIATION

#### HOUSE OF DELEGATES

##### First Meeting of House of Delegates

JUNE 17, 1929, 7.30 P. M.

The first meeting of the House of Delegates was called to order by President-elect, Dr. D. M. Stewart, of South Paris, at 7.30 P. M., daylight saving time, Monday evening, June 17, 1929, at the Riccar Inn, South Poland, Maine.

The roll-call of delegates disclosed a quorum present for the transaction of business.

*The Chairman:* The appointment of a Reference Committee and Nominating Committee I will defer until later, and we will now hear the report of the Secretary and Treasurer.

*Dr. Bryant:* The Secretary's report appeared in the June issue of the JOURNAL.

Report of Treasurer is as follows:

#### EXPENDITURES

Journal,		\$ 500.00
Medical defense:		
Locke, Perkins & Williamson,		301.00
Secretary's office:		
Secretary, salary,	\$100.00	
Secretary, telephone,	30.78	
Secretary, travel,	25.00	
E. M. Clark, stenographer,	461.25	
Supplies, printing, etc.,	159.96	
		<hr/>
		776.99

B. L. Bryant, traveling expenses as delegate to A. M. A., 1928,		\$107.12
Annual meeting, 1928:		
Belgrade Hotel,	\$ 52.35	
Clay, stenographer and transcripts of meeting,	123.48	
Rev. Wm. A. Smith,	5.00	
Telegrams, etc.,	3.18	
Speakers' expenses:		
H. C. Solomon,	20.55	
Lincoln Davis,	12.40	
M. B. Saunders,	31.25	
C. H. Lawrence,	36.00	
S. A. Levine,	30.05	
	<hr/>	312.16
New England Council meetings,		139.80
Secretaries' meetings,		64.00
President's expenses, 1928,		45.00
Councilors' meeting,		12.60
Councilors' expenses:		
Kershner,	\$19.85	
Gehring,	9.76	
	<hr/>	29.61
Venereal Disease Committee:		
Pamphlets, postage, clerical work, etc.,		422.97
(This amount transferred from savings account of this committee to checking account of Asso- ciation.)		
Annual meeting, 1929:		
Programs, envelopes, postage, etc.,		72.83
Blake, Barrows & Brown, bond (Treasurer),		5.00
Refund on dues (overpaid),		2.00
Merrill Trust Co., for securities,		3,052.50
		<hr/>
		\$5,843.58
Expended for securities,		<hr/>
		3,052.50
		<hr/>
Actual expense,		\$2,791.08
	CREDITS	
Cash on hand,		\$5,338.02
Securities:		
Two bonds, Mortgage Bond Co. of N. Y., Nos. 1261-1262, 5½%,	\$2,000.00	
Two bonds, Commonwealth of Australia, Nos. 5033-5034, 5%,	2,000.00	

One bond, City Water Co. of Chattanooga, No. 1973, 5½%,	\$1,000.00	
One bond, Prudence Bond Corp., First Mortgage Coll., 5½%,	1,000.00	
(Included in above is \$1,000.00 bond of Thayer fund.)		
Three bonds, Portland Terminal, 5%, purchased this year at \$3,052.50, including premium and interest,	3,000.00	
	<hr/>	\$ 9,000.00
Interest on securities,		320.00
(Savings account of Venereal Disease Committee, included in cash on hand, \$656.82.)		
Interest on above account,		20.73
Cash from dues,		2,938.00
Interest on deposits,		51.80
		<hr/>
Total credits,		\$17,668.55
Total expenditures,		5,843.50
		<hr/>
Balance, cash and securities,		\$11,824.97
Cash in checking account,	\$2,128.48	
Cash in savings account (coupons from bonds with interest on same),	415.26	
Cash in savings account (Venereal Disease Committee fund, with interest),	281.23	
	<hr/>	
	\$2,824.97	
Securities,	9,000.00	
	<hr/>	\$11,824.97

*The Chairman:* You have heard the reports of the Secretary-Treasurer. What shall be done with them?

On motion, duly seconded, the Treasurer's report was accepted and made part of the records.

The Chairman introduced the subject of a full-time Secretary, which was discussed very generally. The reports from the county societies indicated that a majority of counties favored a full-time Secretary, but there was some

question as to the amount of dues necessary.

The following motions were made and carried.

Voted, That the House of Delegates approve the employment of a full-time Secretary, and that the dues of the Association be raised to ten dollars, if it seems advisable to the Council.

The following matters were presented for discussion:

Dr. Bryant presented the matter per-



taining to automobile accident insurance and accident and health insurance, showing whereby the members could save 15% to 25% of their present premiums.

After due discussion, on motion, duly seconded, this matter was referred to the Council for action.

Questions relating to our present defense insurance was referred to the Defense Committee.

On motion, duly seconded, Dr. E. E. Holt, Sr., was nominated for Affiliate Fellowship in the American Medical Association.

The Secretary read a report on the Garcelon-Merrill fund income for medical scholarship from President Sills of Bowdoin College. (This report appears in the July JOURNAL.)

On motion, duly seconded, it was voted to extend a vote of thanks to President Sills.

Dr. J. A. Spalding presented the candidacy of Dr. Lyman Spalding for the Medical Hall of Fame in 1930, in recognition of his contribution to medicine, and moved that the Maine Medical Association present the name of Dr. Lyman Spalding to the Electors of the Hall of Medical Fame. So voted.

*The Chairman:* According to your By-laws, it is necessary for your chairman to appoint a Nominating Committee, one from each Council or District, and I will appoint Drs. G. R. Campbell, L. L. Powell, J. A. Nile, William Ellingwood, R. W. Wakefield and L. H. Smith.

The Chair also appoints on the Reference Committee, Drs. T. A. Foster,

R. A. Goodwin, W. E. Kershner, G. E. Young, G. A. Neal and H. D. McNeil. These two committees should meet immediately after this session is finished, and report at to-morrow's meeting at 11.30 A. M., in this building, daylight saving time.

Adjourned.

## Second Meeting of House of Delegates

JUNE 18, 1929, 11.30 A. M.

The second meeting of the House of Delegates was held on Tuesday morning, June 18, 1929, at the Riccar Inn, South Poland, Me.

In the absence of the President-elect, the meeting was called to order by Dr. John Sturgis, of Auburn.

*The Chairman:* According to your By-laws, Section 2 of Chapter 4, "The report of the Nominating Committee and the election of officers shall be the first order of business of the House of Delegates at the second meeting of the House." This is the second meeting of the House, and, if any member of the Nominating Committee is present, I will ask him to report.

*Dr. Ellingwood:* Your Nominating Committee reports as follows: For the best interests of the Association, we feel that the Councilor for the Third District, Dr. W. E. Kershner, should be returned; also the Councilor for the Fourth District, Dr. George E. Young, of Showhegan.

*Scientific Committee*—Dr. T. J. Borage retires and Dr. J. L. Johnson becomes chairman; Dr. W. J. Renwick,

of Auburn, and added to that is Dr. F. T. Hill, of Waterville.

*Legislative Committee*—Dr. J. D. Phillips, Southwest Harbor; Dr. E. D. Merrill, Dover-Foxcroft; Dr. L. P. Gerrish, Lisbon Falls.

*Social Hygiene Committee*—Dr. G. H. Coombs, Waldoboro; Dr. H. W. Stanwood, Rumford.

*Cancer Committee*—Dr. Mortimer Warren, Portland; Dr. H. E. Thompson, Bangor; Dr. Barbara Hunt, Bangor.

*Medical Education and Hospitals*—Dr. G. H. Stone, Bangor; Dr. E. H. Risley, Waterville; Dr. C. J. Hedin, Bangor.

*Medical Defense Committee*—Dr. E. G. Abbott, Portland; Dr. B. L. Bryant, Secretary, Bangor; Dr. W. G. Chamberlain, Fort Fairfield; Dr. E. V. Call, Lewiston; Dr. G. E. Young, Skowhegan; Dr. Allan Woodcock, Bangor.

*Committee on Public Relations*—Dr. F. W. Mann, Houlton; Dr. R. D. Small, Portland; Dr. C. F. Kendall, Augusta; Dr. G. A. Coombs, Augusta; Dr. C. W. Bell, Strong.

*Necrologist*—James A. Spalding, Portland.

*Delegates to A. M. A.*—Dr. B. L. Bryant, Bangor; alternate, Dr. W. E. Weber, Lewiston. Dr. F. Y. Gilbert, Portland; alternate, Dr. L. P. Gerrish, Lisbon Falls.

*Delegate to National Council*—Dr. E. W. Gehring, Portland.

*Delegates to State Societies*—New Hampshire, Dr. J. A. Nile, Rumford; Vermont, Dr. William Ellingwood, Rockland; Massachusetts, Dr. R. A.

Goodwin, Auburn; Rhode Island, Dr. C. H. Jameson, Rockland; Connecticut, Dr. L. L. Powell, Portland.

*New England Council*—Dr. William Ellingwood, Rockland.

*The Chairman*: You have heard the nominations as read. What will you do with them?

On motion, duly seconded, it was voted to accept the report as read and the Secretary be empowered to cast a ballot for the slate as nominated.

The Secretary performed his duty and they were declared elected.

The following changes and amendments to the By-laws, having been duly presented and laid on the table at the preceding session, were acted on as follows:

The name of the Committee on Venereal Diseases was changed to Committee on Social Hygiene.

On motion, duly seconded, Section 6 of Chapter 4 of the By-laws was deleted and Section 7 changed to Section 6 (amendment to By-laws).

*The Chairman*: We will now have a report of the budget.

Dr. Bryant reports the budget as follows:

President's expenses,	\$ 100.00
Salary, Secretary-Treasurer,	100.00
Stenographer, office expenses	
and travel,	700.00
Committees,	100.00
Councilors,	100.00
Journal,	1,000.00
Delegates to A. M. A.,	500.00
Clinics,	400.00
Medical defense,	300.00
Annual meeting,	300.00

Secretaries' meetings,	\$ 75.00
New England Council,	150.00
	<hr/>
Total,	\$3,825.00

On motion, duly seconded, the report was accepted.

*The Chairman:* We can now have the report of the Reference Committee.

*Dr. McNeil:* The Committee on Reference begs leave to report: We heartily endorse the Secretary's report, and call special attention to that part calling for a biographical report of the members of the Maine Medical Association, and urge members to be prompt in filling out the record cards.

On motion by Dr. McNeil, duly seconded, that part of the report was adopted.

*Dr. McNeil,* continuing: The reports of the six Councilors, as published, are endorsed.

On motion, duly seconded, that part of the report was accepted.

*Dr. McNeil,* continuing: We urge the adoption of the report of the Committee on Hospitals, and ask that the members read carefully its report in the JOURNAL. The paragraph pertaining to a hospital for incurables is one that should be considered, as the time will come shortly when action must be taken on the same.

On motion, duly seconded, it was voted to adopt that part of the report.

*Dr. McNeil,* continuing: The report of the Legislative Committee is endorsed, and we recommend its adoption.

On motion, duly seconded, it was voted to adopt that part of the report.

*Dr. McNeil,* continuing: We rec-

ommend the continuation of the appropriation to the Committee on Social Hygiene, and that they continue the work as outlined by them in their report.

On motion, duly seconded, that part of the report was adopted.

*Dr. McNeil,* continuing: The report of the Committee on Cancer is endorsed, and it is the concensus of opinion of the committee that they should continue their campaign of publicity, and we urge that every county society should devote at least one meeting a year to the subject of cancer.

On motion, duly seconded, it was voted to adopt that part of the report.

On motion by Dr. Mann, duly seconded, this report was adopted as a whole.

Owing to some complaints as regards the reports of Wassermann tests made by the State Laboratory, there was a general discussion and the matter referred to the Council with power.

*The Chairman:* The next question is the place of meeting.

It was moved and seconded that we meet in Portland sometime in June, 1930. So voted.

On motion, duly seconded, the Council was instructed to look into the question of a meeting place for 1931 and report to the House of Delegates at the Portland session.

Dr. Hill reported the work of his Committee on the Hard-of-hearing Child. This report was accepted and the committee continued.

The question of a circulating medical library, to be made a part of the State



Library in Augusta, was presented and discussed.

On motion, duly seconded, the Council was instructed to appoint a Library Committee with power. So voted.

On motion, duly seconded, a vote of

thanks was extended to the Committee of Arrangements and to the management of the Poland Spring House for their active coöperation in making this meeting a success.

Adjourned.

## GENERAL SESSIONS

### First General Session

JUNE 18, 1929, 9.30 A. M.

The convention was called to order by the President, Dr. F. Y. Gilbert, at the Riccar Inn, at 9.30 A. M.

Invocation by Rev. Dr. Kenney.

*The President:* At the outset of the sessions, I wish to call your attention again to the rules, namely, that the papers are of twenty minutes' duration and the discussion is limited to the five-minute period.

The first paper this morning is on "Spinal Anesthesia," by Dr. William Anderson, of Portland.

Dr. Anderson reads.

This paper was discussed by Dr. Webber, of Portland, Dr. Jackson, of Houlton, and Dr. L. S. McKittrick, of Boston.

*The President:* Dr. Kenney was here from Massachusetts as a delegate, but has been called away on account of his brother's death.

The next two papers are both on appendicitis, and, if the authors have no objection and there is no objection from the floor, the Chair will rule that we will hear them one after the other and discuss them both together.

The next paper is a paper on "Appen-

dicitis," by Dr. H. M. Goodwin, of Bangor.

Dr. Goodwin reads.

*The President:* The next paper is "Some Clinical Considerations of Acute Appendicitis," by Dr. Frank H. Jackson, of Houlton.

Dr. Jackson reads.

These papers were discussed by Dr. Gehring, of Portland, Dr. Files, of Portland, and Dr. Risley, of Waterville.

*The President:* The next paper is "Surgical Aspects of Diabetes," by Dr. L. S. McKittrick, of Boston.

*Dr. McKittrick:* Mr. President, I cannot go ahead with my paper without expressing my appreciation of the preceding papers.

Dr. McKittrick reads.

This paper was discussed by Dr. Wakefield, of Bar Harbor, and Dr. Robinson, of Portland.

*The President:* This brings to a close the morning program, and the session stands adjourned.

### Second General Session

JUNE 18, 1929, 2.00 P. M.

The meeting was called to order at 2.00 P. M. by the President, Dr. F. Y. Gilbert.

*The President:* I think I will not give the President's address at this time, but will go on to some of the other business of the session.

We have five states represented by delegates, and we all want to hear from them; also we have the President of the New Hampshire State Medical Society. I will call upon Dr. Henry D. Smith, of Hudson, N. H., also representing the state society as a delegate. Dr. Smith. [Applause.]

*Dr. Henry D. Smith:* Mr. President and Members of the Association: I deem it a very great privilege to bring to you to-day the greetings of the New Hampshire State Medical Society. We of New Hampshire very freely acknowledge the debt which we owe to you of Maine. Of our last four Presidents, two were Maine boys and received their medical educations in your Maine school, the passing of which I deeply deplore. Again, last year we took a leaf from your book in the matter of medical defense, and we have functioning at present a Committee on Medical Defense patterned like the one you have here in this state and we hope that good results may come therefrom. I came here with a double purpose to-day. First, to extend the greetings of your sister society of New Hampshire. That I have done. The second purpose I have in mind is to learn something which I may take back home with me and report later to my own state society. I have learned much here this forenoon which I can apply to my own private practice, and I have learned some things which will benefit my

state society: and I am sure that I shall learn other things that will make my coming here of value, not merely to myself, but to the society of New Hampshire. [Applause.]

*The President:* I think at this time it might be well to introduce or have Dr. Cobb just stand up and acknowledge his being here. He is an Ex-President of the New Hampshire Medical Society and was here with us and spoke to us last year. Dr. Cobb. [Applause.]

*Dr. Cobb:* Mr. President and Members: I am one of those whom Dr. Smith has just mentioned as being a Maine boy and receiving his education in the old Maine Medical School. I was a member of the Maine Medical Association for fifteen years before I joined the New Hampshire Medical Society, and my memories of the meetings in Portland and Lewiston of the old Maine Medical Association are very fresh in my mind, and they are very pleasant memories. I am very glad to be with you again. [Applause.]

*The President:* Dr. Lane, of Boston, is here representing Massachusetts.

*Dr. Lane:* Mr. President and Members of the Maine Medical Association: I wish to extend to you the greetings and felicitations of the Massachusetts Medical Society. I represent one of the ties which assist to bind together our associations and to cement the friendly relations which have always existed between us in the past. When I saw Dr. Bryant in Bangor several months ago, I asked him what a delegate was supposed to do. He suggest-

ed that one of the things that a delegate from Massachusetts was supposed to do was to remind the Maine Medical Association that it was born of the Massachusetts Medical Society sometime in the distant past. But why bring up the dead past? Not that we are ashamed in any degree at all of the accouchement or of the virile, healthy Association which has resulted therefrom, but because I want to say just a word looking to the future. The New England States are very closely related geographically. There are practical evidences of coöperation in the commercial and business world as well as in the medical profession, and the New England Medical Council is an example. The *New England Journal* at present is the organ of the society. The visiting of these meetings by delegates from other states is still another example of this fact, and I believe there is still further opportunity in the future to develop these pleasant relations, and also to exchange beneficial ideas in medicine, in organization, in public health work, possibly, through the efforts of the Medical Council already mentioned, in educational matters, and in the concerted action of delegates to the various national associations. I simply suggest along this line. I therefore bespeak further the continuance of these affiliations for the purpose of perpetuating the ideals of our profession. [Applause.]

*The President:* Connecticut is represented by Dr. John L. Buell.

*Dr. Buell:* Mr. President, it is a great pleasure and a privilege to come

here as a delegate from the Connecticut society. I am not a very active member in my state medical society, and at the last annual meeting I happened to be in the State of Maine myself. Before coming up, I wrote our Secretary and asked him if there was any special message which he wished to convey to the State of Maine, but I received no reply. I infer, therefore, that he thought there was nothing to be added to the entertainment and the professional skill demonstrated here. I have enjoyed the papers which I heard this morning very much indeed. I shall be very glad to take back a report of them to my state society. There is nothing I can add. Of course you know you are always welcome visitors to the State of Connecticut and to our medical meetings, and I hope that the cordial relations which have existed so long will continue between Maine and Connecticut. [Applause.]

*The President:* It is my privilege to extend an invitation to our visiting friends to take an active part in the program that follows.

Now with no intention really of "passing the buck" at all, the President's address is written on administrative work, and a part of it, I think, has been accomplished in the House of Delegates, and later it will appear in the JOURNAL. Therefore I think, owing to the lack of time, it will be just as well to let it pass over, and perhaps, if necessary, pick it up at a later time. If there is no objection to that ruling on the part of the Chair, we will go on to the next paper on the program, which



is "Treatment of Anemia," by Dr. George Minott, of Boston.

Dr. Minott reads.

This paper was discussed by Dr. Warren, of Portland.

*The President:* Dr. Minott has brought us a very able and valuable message. This paper is open for discussion and I am sure Dr. Minott will be glad to answer any questions.

*The President:* I am sure the Association is very much indebted to Dr. Minott for his talk here to-day. The next paper on the program is "Carcinoma of the Colon and Rectum," by Dr. E. H. Risley, of Waterville. [Applause.]

Dr. Risley reads.

*The President:* The paper is open for discussion. [No response.] If there is no discussion, has Dr. Risley any further remarks to make?

*Dr. Risley:* Mr. President, just one thing which my good friend, Dr. Piper, called my attention to—the fact that I did not emphasize enough the symptom of diarrhoea as marking the beginning of malignancy in the colon and rectum. That point should probably have been stressed much more strongly. That often is the first symptom of the beginning of this disease in the colon or rectum.

*The President:* The next paper on the program is "Deep X-Ray Therapy," by Dr. Langdon Thaxter, of Portland.

Dr. Thaxter reads.

This paper was discussed by Dr. Barbara Hunt, of Bangor.

*The President:* I will leave it to you whether you will now adjourn or listen to the President's address. Dr. Twitchell has spoken to me about it.

*Dr. Twitchell:* Mr. President, I think we would all like to hear the address, and would be disappointed if we did not. I hope you will favor us with it, and I move that it is the sense of this meeting that the President should give us his address.

*Dr. Cobb:* I wish to second that motion, Mr. President.

The motion prevailed, and Dr. Twitchell assumed the Chair during the delivery of the President's address.

Dr. Gilbert reads.

*Chairman Twitchell:* You have heard this very excellent and timely address of our President. I think it is customary to refer this paper to a committee for consideration, and if it is your pleasure that I appoint such committee you will please make it manifest.

It being so made manifest by a show of hands, the Chair appointed Dr. Bryant, of Bangor, Dr. Webber, of Lewiston, and Dr. Pratt, of Farmington, as such committee.

The President then resumed the Chair.

*The President:* I can only say, gentlemen, that we will open the meeting promptly at 9.30 to-morrow morning, and if there is nothing further to come before this session, I will declare it adjourned.

Adjourned.

**Proceedings at the Annual Banquet**  
TUESDAY EVENING, JUNE 18, 1929,  
POLAND SPRING HOUSE

*President Gilbert:* The program here will be very short. We are very fortunate in having the chief executive here, and I do not think he needs any introduction at all. We all know him and I merely call upon the Governor, Tudor Gardiner, to say a few words to us at this time. [Applause, the audience rising.]

*Governor Gardiner:* Dr. Gilbert, Ladies and Gentlemen: To be perfectly frank with you, I have had a rather busy time lately, and I came very near calling up this afternoon and asking to be excused from coming over here, knowing that you were doctors and kind-hearted; but then I reflected that it was only a couple of years ago that I had pneumonia and the medical profession pulled me out, and I thought I would like to come over and express my appreciation and let you know that I am glad that I am still on this side.

I speak that word of personal thanks to the medical profession; but I suppose I am here also in an official capacity and speaking for the people of the State of Maine, desiring for them to pay some tribute of respect to the medical profession.

I have been traveling a lot, and I have found between trips, when I have had a little time to attend to the state's business, that some other parts of the state are traveling a lot, too. I had occasion to look into the automobile business of the state the other day, and I find that the state owns a good many

automobiles, and the state has an arrangement by which it uses a good many more automobiles at the rate of ten cents per mile, and the number of miles traveled last year on those cars so paid for was 2,241,000 miles. So I bear in mind, when I think I am traveling too much, that the rest of the state is on wheels, too.

In studying the state affairs one comes across a great many interesting things, and one finds, also, that much of the work of the state has grown up in rather a haphazard manner. We have now forty-one separate departments or separately managed institutions in our state government. That is admittedly too many for the proper conduct of a governmental unit; but the only thing that can ever cure it is desperate political surgery. Anybody interested in one department or one institution or set of institutions will readily concede that forty-one is too big a total, but they will say that any consolidation should not apply to that particular branch in which they are interested. It will be a rough time, but it has got to come sooner or later, though, to secure efficiency and in the interest of economy. There must be some consolidation that will make our tax outlay go further, produce more work, and prevent the overlapping of effort and duplication of service.

Probably you gentlemen here are more concerned than any laymen with the problems, so far as medical service goes, in certain parts of the state. You know it is a real problem in our rural communities. You know what a doctor

means in a remote town, and you know what the absence of a doctor means in a remote town. I trust that you may be of some assistance in working out this problem. We realize that our hospital facilities have been extended so that those in the country have the benefit of that service. I do not know how much a nursing service could be expected to eke out the work of the medical profession, but I hope that something will be done so that even the remote towns will have the necessity of medical attention reasonably convenient. I can think of no more important work for the development of the state and for the happiness and well-being of our people than that your Association should bring about some such service throughout the state. [Applause.]

*The President:* We greatly appreciate the effort of the Governor in coming here and the word that he has given us. I might say that I think perhaps the action taken by the House of Delegates in favoring a full-time Secretary may go a long way in assisting the Governor in some of his problems that he has mentioned.

The next part of the program will take place in the moving picture theatre outside. There you will hear Dr. Richard Strong, of Boston, and I am going to ask him to briefly give you an idea of his talk before going down. He will touch for a minute or two on the personal side of it, so that you will have some idea of what you are going to see and hear. I am told that it is extremely interesting and I believe none of you will want to miss it. It is a

great pleasure to introduce Dr. Strong, of Boston. [Applause.]

*Dr. Richard Strong:* Mr. President, Governor Gardiner, Ladies and Gentlemen: The African expedition that I have been asked to tell you about and show you moving pictures of this evening was organized for the purpose of making a biological and medical survey of Liberia, because Liberia is that country of Africa about which the least was known in those respects. It was also the plan to cross the continent of Africa from the west coast to the east coast, going particularly through the Belgian Congo, and to make comparative observations in those equatorial regions. This program was carried out.

It seems to me that there are several reasons why the people of the United States should be interested in Liberia. In the first place, we are responsible for the founding of the original colony there at Monrovia, named after President Monroe. Secondly, since the Treaty of Versailles, we have been acting as the sole adviser in Liberian affairs, though particularly with relation to her finances. Thirdly, Liberia may become an important independent source of the supply of rubber for this country. (Of course Liberia is a great rubber-producing country, and Mr. Firestone has acquired a concession of a million acres of land there to raise rubber.) Fourth, the international loan to Liberia has recently been refunded and replaced by a new loan, an American loan, with the National City Bank acting as the fiscal agent.

Some of you may remember that, as



long ago as 1816, the American Colonization Society was founded for the express purpose of looking after the welfare of some 200,000 freed slaves, slaves that had become freed either through the voluntary action or the death of their owners, and it was decided to found a colony for them on the west coast of Africa, now Liberia, where they could forever enjoy the benefits of freedom. The first contingent of these freed slaves was sent out in 1821, and in succeeding years they went from time to time. In 1847 the settlers decided that they wished to take the management of their affairs into their own hands, and, after a declaration of independence, Liberia became a free country, with a constitution fashioned very much after our own. However, after eighty-two years of so-called independence, the greater part of Liberia is free only in name.

I will say just a word about the inhabitants. They are composed of between ten and twelve thousand so-called Americo-Liberians, mostly the descendants of slaves who lived in the capital, Monrovia, and some half dozen other villages scattered along the coast. Some five thousand of them live in Monrovia. The administrative affairs of the country are in the hands of the President, who is the commander-in-chief of the army and navy. The navy consisted of one steam vessel that had to be sold for repairs that were made on it. The army consists of six hundred members and the so-called Liberian Frontier Force, a very undisciplined body of troops. Then there is a Vice-President,

who presides over the Senate—twenty-eight Senators and fourteen Representatives. There is a cabinet with similar positions to our own, including all the secretaries, chief justice and associate justices. In addition, there are about a million and a half people who live, with the exception of one tribe, in the interior of the country, and they belong to some seventeen different tribes. You will see them in the moving pictures to-night. They all have their own dialects and do not speak English, of course.

The affairs of the government are in the hands of something less than two thousand Americo-Liberians, who collect all the revenues of the country and disburse them. Nothing whatever is being done to improve the condition of the million and a half of people who live in the interior of the country. On the other hand, a great deal is being done to oppress them. The moving pictures I am going to show you to-night illustrate the different tribes of people, their customs, their dances, some of the diseases from which they suffer, the wild game of the country, and some of the diseases from which the animals suffer, some of which are passed on to man.

The expedition has been about a year in Central Africa, traveling something over fourteen hundred miles on foot. I think this is all I need say now before adjourning to show you the moving pictures. [Applause.]

Thereupon the audience adjourned to the moving picture theatre, where the Liberian expedition moving pictures were shown.

### Third General Session

JUNE 19, 1929, 9.30 A. M.

The meeting was called to order by the President, Dr. Gilbert.

*The President:* The first paper at this morning session is "Review of Twenty-five Years of Observation in the Field of Tuberculosis in Maine," by Dr. Estes Nichols, of Portland.

Dr. Nichols reads.

*The President:* The Chair has been a little lenient as to time, because it is very difficult to cover twenty-five years' work in twenty minutes. However, from now on I am going to adhere pretty strictly to the time limit. This is really a symposium on tuberculosis, and, unless there is some objection, the Chair will proceed with the other papers. The next paper is "Report on Clinical Work in Asthma in Maine During the Last Eight Years," by Dr. C. B. Sylvester, of Portland.

Dr. Sylvester reads.

*The President:* The last paper in the symposium is "Lantern Slide Demonstration of Pathological Conditions of Lungs and Pleura Revealed by X-Ray Examination," by Dr. J. P. Goodrich, of Waterville.

*The President:* I think, in view of the fact that we have already gotten into the subject of tumors of the lungs in the preceding paper, that we will go right on to the next paper. Then we can open up and carry on a discussion of this whole subject right through. The next paper, then, is "Primary Cancer of Lungs and Bronchi," by Dr. Channing Frothingham, of Boston.

Dr. Frothingham reads.

These papers were discussed by Dr. Dunn, Dr. Adams, Dr. Hill, Dr. Welch, Dr. Thaxter, Dr. Hunt, Dr. Cummings and Dr. Gehring.

*The President:* This afternoon we convene promptly at 2.00 o'clock for the final two papers on the program, and unless there is something more, I will declare the session adjourned.

Adjourned.

### Fourth General Session

JUNE 19, 1929, 2.00 P. M.

The meeting was called to order by the President.

*The President:* The first paper this afternoon is "Chronic Arthritis," by Dr. T. O. Vanamee, of Portland.

Dr. Vanamee reads.

*The President:* As the next paper is on the same subject, if there is no objection from the floor, the Chair will rule that we will discuss both papers at the same time. The next paper is "Causes of Arthritis," and we are very fortunate in having Dr. Robert Osgood, who is a member of the faculty of Harvard University, and very well known in this line of work, to discuss that phase of the question with us. [Applause.]

*The President:* It will take but a very short time to complete the business. Will Dr. Bryant read the report of the House of Delegates?

*Dr. Bryant:* There are at present 787 members in the Association. Of these 26 are honorary, having been in active practice for 50 years. 24 new members have been added, and there have been 12 deaths.

## FINANCES

Cash on hand, June 1, 1928,	\$5,338.02
Securities,	9,000.00
Interest on securities,	320.00
(Savings account of Venereal Disease Committee included in cash on hand, \$656.82.)	
Interest on above account,	20.73
Cash from dues,	2,938.00
Interest on deposits,	51.80
	<hr/>
	\$17,668.55

## CREDIT

Expended for year:		
Actual expenses,	\$2,791.08	
Paid for bonds,	3,052.50	
	<hr/>	\$5,843.58
Balance:		
Cash in checking and savings accounts,	2,824.97	
Securities,	9,000.00	
	<hr/>	\$17,668.55

It was voted, That the House of Delegates approve the employment of a full-time Secretary, and that the dues of the Association be raised to ten dollars, if it seems advisable to the Council.

Voted, To endorse Dr. Lyman Spalding as a candidate for the American Hall of Fame in 1930.

Voted, Our appreciation to the Committee on Medical Scholarship of Bowdoin College of their intention to offer a fellowship of \$1,500.00 providing for a year's graduate work to one of the younger physicians in the state who has had five or six years of practice, this to supplement the work of the Garcelon-Merritt scholarships.

Voted, To refer to the Council for investigation two insurance proposals for policies for the members of the Association, one for health and accident,

the other for automobile insurance.

Voted, to recommend Dr. Erastus Eugene Holt, Sr., for Affiliate Fellowship in the American Medical Association.

Voted, The following changes in the By-laws: That the name of the Committee on Venereal Diseases be changed to the Committee on Social Hygiene.

That in Chapter IV, Section 6 be stricken out and that Section 7 be made Section 6.

Voted, That certain criticisms of our liability insurance policy be referred to the Committee of Medical Defense.

Voted, To refer to the Council a proposal to establish a State Medical Library at Augusta, with power to act.

Approved the budget of the Council for the ensuing year.



## BUDGET

President's expenses,	\$ 100.00
Salary, Secretary-Treasurer,	100.00
Stenographer, office expense	
and travel,	700.00
Committees,	100.00
Councilors,	100.00
Journal,	1,000.00
Delegates to A. M. A.,	500.00
Clinics,	400.00
Medical defense,	300.00
Annual meeting,	300.00
Secretaries' meetings,	75.00
New England Council,	150.00
	<hr/>
	\$3,825.00

Voted, The following officers and committees were elected for the ensuing year:

*Councilor, Third District*—Dr. W. E. Kershner, Bath.

*Councilor, Fourth District*—Dr. G. E. Young, Skowhegan.

*Scientific Committee*—Dr. J. L. Johnson, Bangor; Dr. W. J. Renwick, Auburn; Dr. F. T. Hill, Waterville.

*Legislative Committee*—Dr. J. D. Phillips, Southwest Harbor; Dr. E. D. Merrill, Dover-Foxcroft; Dr. L. P. Gerrish, Lisbon Falls.

*Social Hygiene Committee*—Dr. G. H. Coombs, Waldoboro; Dr. H. W. Stanwood, Rumford; Dr. H. J. Hunt, Bangor.

*Cancer Committee*—Dr. Mortimer Warren, Portland; Dr. H. E. Thompson, Bangor; Dr. Barbara Hunt, Bangor.

*Medical Education and Hospitals*—Dr. G. H. Stone, Bangor; Dr. E. H. Risley, Waterville; Dr. C. J. Hedin, Bangor.

*Medical Defense Committee*—E. G. Abbott, Portland; B. L. Bryant, Secretary, Bangor; W. G. Chamberlain, Fort Fairfield; E. V. Call, Lewiston; G. E. Young, Skowhegan; Allan Woodcock, Bangor.

*Committee on Public Relations*—F. W. Mann, Houlton; R. D. Small, Portland; C. F. Kendall, Augusta; G. A. Coombs, Augusta; C. W. Bell, Strong.

*Necrologist*—James A. Spalding, Portland.

*Delegates to A. M. A.*—B. L. Bryant, Bangor; alternate W. E. Webber, Lewiston. F. Y. Gilbert, Portland; alternate, L. P. Gerrish, Lisbon Falls.

*Delegate to National Council*—Dr. E. W. Gehring, Portland.

*Delegates to State Societies*—New Hampshire, Dr. J. A. Nile, Rumford; Vermont, Dr. Wm. Ellingwood, Rockland; Massachusetts, Dr. R. A. Goodwin, Auburn; Rhode Island, Dr. C. H. Jameson, Rockland; Connecticut, Dr. L. L. Powell, Portland.

*New England Council*—Dr. William Ellingwood, Rockland.

Voted, That the thanks of the Association be extended to the Committee of Arrangements, and to the management of Poland Spring House for what they have done to make this meeting a success.

Voted, To hold the next meeting in Portland, the date to be fixed by the Council.

On motion, duly seconded, it was voted to approve the report of the House of Delegates.

*The President:* The next matter of business is the election of a President-

elect, and the Chair awaits a nomination.

*Dr. Call*, of Lewiston: Mr. President and Members of the Association: The delegation from Androscoggin County came over here—some of us—with the idea that we would recommend a man for your consideration, a good man, one who has always worked for this Association, always present at the meetings, and who stands well in his community. After we got over here and talked with a few of the members, we decided that perhaps it would not be best to nominate our man this year, and I would like to place in nomination an equally good man, one who stands well in his community, has always worked hard and who is willing to carry on and work still harder. He is a man who always attends our meetings and is an honor to the Association. I place in nomination the name of Dr. Sylvester, of Portland. [Applause.]

*The President*: You have heard the nomination of Dr. Sylvester. Is that nomination seconded?

*Dr. Gehring*: Mr. President, we in Cumberland County look upon Dr. Sylvester as a man foursquare and without a flaw. I take great pleasure in seconding his nomination.

*The President*: Are there any other nominations?

On motion by Dr. Bryant, duly seconded, it was voted that the nominations cease; and on further motion, it was voted that the Secretary cast the ballot of the Association for Dr. C. P.

Sylvester for the office of President-elect.

The Secretary performed the duty assigned him and Dr. Sylvester was declared elected President-elect for the ensuing year.

*Dr. Sylvester*: Mr. President and Brethren of the Association: I am your servant. I have always intended to be and I always shall be. I might question your wisdom, because I feel that there are many in the Association better qualified than am I for this office, but I accept your decision with the deepest gratitude for the honor which you have conferred upon me, and I shall serve in behalf of all the doctors of the state and not any section or place. I thank you. [Applause.]

*The President*: I am sure that Dr. Sylvester will be a very valuable man in that position. Before turning over the Chair to the President-elect, I would like to express my appreciation for the coöperation of the members in carrying on the meetings here and in their ready response to requests and rulings. I will also say that I appreciate the honor you have conferred upon me the past two years of being your President-elect and President. I will now call upon Dr. Stewart, who is now your President, to take the Chair. [Applause.]

*Dr. Stewart*: It is with mingled feelings, gentlemen, that I automatically take over the office of President. I deeply appreciate the honor of becoming a link in the chain of eminent men who have gone before as Presidents of this Association. They have set a high

standard which makes it difficult for each man who follows. I believe, however, that they are interested in the Association and always ready to render any help which they can. It does impress me that there is a great deal of responsibility connected with the office of President, and perhaps especially so at this time. You have made it possible for this Association to accomplish more than it has previously been able to do by giving the Council the privilege, if it sees fit, of raising more money and hiring a full-time Secretary. Since we have about eight hundred members, and since we represent an outlay of about four million dollars annually, it would seem that there must be a great deal in common. Other organizations have recently found that coöperation

was gaining more than competition. That has been the tendency of trade. Most men, if we are to consider ourselves as laborers, have found that eight hundred men who labor together have a great many interests in common, and many things which they can do which will be of advantage to them and also of advantage to the people whom they serve. I want to again repeat that I appreciate the responsibility, and I know that I shall receive from each member, and that the Council will receive, the hearty support and active coöperation of each man. [Applause.]

If there is no further business, I will declare the seventy-seventh annual meeting of the Maine Medical Association adjourned.

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## NOTICES

### United States Public Health Service

#### STUDIES OF VISION IN SCHOOL CHILDREN

The United States Public Health Service has recently announced the results of studies conducted of vision of school children. Nearly 2,000 children were carefully examined by a physician specially trained in defects and diseases of the eye. These children were not a selected group, and, therefore, the results may well be considered as representing conditions in the general school population of the country.

The number of children in the group studied who actually needed glasses for school work was 45% of those examined. The Surgeon General empha-

sizes the importance of making visual tests of school children at least twice a year, because nearsightedness may progress rapidly within a year. The nearsighted eye may practically always be discovered by the use of the simple Snellen chart. Farsightedness is not always discovered with this test.

These studies show that while 60% of the children may read normally on the vision test chart, 32% of these are definitely farsighted and are constantly straining the eyes in near work. This was shown by using "drops" in the eye, which temporarily removed the power of optical adjustment. The fact that the eyes of children should always be examined by a physician who is an eye



specialist and is competent to make a thorough examination, is also pointed out. If a thorough examination had been made of the vision and proper steps taken for the correction of defects instead of waiting for symptoms to develop, it is probable that many persons who are wearing glasses to day would not have to do so.

### **Why School Boards Should Be Interested in the Problem of Conservation of Hearing**

1. Because it is a practical form of applied preventive medicine.

2. Because there are 3,000,000 hard of hearing children of school age in this country.

3. Because 80 per cent. of these cases of deafness can be prevented. Little can be done by way of cure after condition is well established.

4. If the amount of deafness is to be lessened, attention must be given to children in the schools. This is the logical place for this work and is one of the best means of applying preventive medicine.

5. Hard of hearing children "repeat" their grades three and one-half times as often as other children. This causes an enormous expense of taxpayer's money and also wastes time. It probably costs about \$90.00 for each child to repeat a grade.

6. This work has been successfully carried on in many other cities throughout the country. It has the backing of the American Federation of the Hard of Hearing. It is good economy, both from humane and financial standpoints.

7. Test surveys have shown the need of this work. A test in Waterville has shown an average deafness of 8.77 per cent.

### **WHAT IS THE PROGRAM ADVISED?**

1. Systematic surveys of hearing in the schools each year, to be conducted by the school nurses.

2. The use of the 4-A audiometer, as this gives an accurate test of one hundred and twenty children an hour, testing forty in a group. Old methods are unreliable and waste valuable time. A trained otologist could test only about four cases an hour by their old methods. Cases showing a loss of nine sensation units to be grouped and retested.

3. Those finally showing this amount of loss to be referred to the school physician, and thence either to their own doctors or to an ear clinic for proper medical attention. This will eliminate about 80 per cent. of cases if taken early.

4. Speech-reading facilities to be furnished for those hopelessly deafened.—*Committee on Hard of Hearing Children, Kennebec County Medical Association.*

### **New and Non-Official Remedies**

In addition to the articles enumerated in our letter of June 29, the following have been accepted:

Parke, Davis & Co.:

Parke, Davis & Co.'s Viosterol.

E. R. Squibb & Sons:

Squibb's Viosterol—100 D.

Squibb's Viosterol Cod Liver Oil—5 D.

Squibb's Viosterol Cod Liver Oil—5 D, Mint-flavored.

**United States Public Health Service**  
**Prevention of the Introduction of**  
**Diseases from Abroad**

A report recently submitted to Congress by Surgeon General H. S. Cumming, of the Public Health Service, contains interesting information relative to the prevention of the introduction of diseases from abroad. This report indicates that no instance of the importation of any quarantinable disease occurred during the past year. Cases of smallpox, leprosy and typhus fever reached the quarantine stations operated by the Public Health Service and were detained. No cases of plague, yellow fever, or cholera arrived at the quarantine stations. This fortunate experience was due not only to the system of control at domestic ports, but to the system of medical inspection maintained at foreign ports from which diseases are likely to spread.

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# THE JOURNAL

OF THE

## Maine Medical Association

Published under direction of the Council of the Maine Medical Association

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All papers, case reports, etc., should be typewritten when possible.

Proof-sheets will be sent to the author when requested.

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### \*SUBARACHNOIDAL ANESTHESIA

By WILLIAM DELUE ANDERSON, M. D., Portland, Me.

Spinal anesthesia was the title chosen for this paper when asked to prepare same for this meeting. In presenting this subject, I wish to give you my impressions of its value to the operating surgeon. Much has been written on spinal anesthesia, and it is quite impossible to review the literature without repeating what has been accomplished by others. Several years ago I was a student of Gaston Labat, and last year I had the privilege of learning controllable spinal anesthesia from George P. Pitkin.<sup>1</sup> This, with the experience of spinal anesthesia in my own practice, permits me to suggest this form of anesthesia for all operations below the diaphragm, except those that can be done with topical or regional anesthesia, without consuming much time, apprehension and discomfort to the patient. I have not had any experience with this type of anesthesia above the diaphragm, but would suggest to those who may be interested in same, to use it cautiously.

Spinal anesthesia has been employed sporadically since 1885. It has come in waves, but at present practically everyone is so stimulated over its results that it seems like a permanent wave, and in time supplanting a greater part of general anesthesia. This is also called intradural, subarachnoidal and lumbar anesthesia. At this time may I suggest the name subarachnoidal as a better word, as it is strictly correct and does not give the patient something to be feared as does spinal; therefore, I shall use the word subarachnoidal instead of spinal in speaking of this form of anesthesia in this paper.

Corning, in 1885, first attempted to influence the spinal cord by injecting a solution of cocain between the spinous processes of the vertebræ. About this time the lumbar puncture of Quinke was of great importance for further progress. To Bier belongs the credit of having purposely produced surgical anesthesia by the injection of anesthetic

\*Read before the annual meeting of the Maine Medical Association at Poland Spring.



drugs into the spinal canal. In 1899, he published the results of eight anesthetics which he had practiced upon himself, his assistant and six patients. His method proved dangerous, because of the symptoms that followed the use of cocain, the drug of choice at that time. The method was revived later when stovain and tropacocain were introduced for the production of different solutions of higher and lower specific gravity than that of the patient's spinal fluid, so that the height of anesthesia would depend upon gravity and therefore the position of the patient. You may readily see that controllable anesthesia was being considered at this time, but, owing to the toxic drugs in use, it was a dangerous procedure.<sup>2</sup> In 1905, Professor Braun introduced novocain into the practice of medicine. Novocain can be heated to 120 degrees C. without decomposition. Water solutions may be sterilized by boiling or autoclaving without deterioration and can be kept in stoppered flasks almost indefinitely without change in color. It is neutral in reaction and is not irritating upon flesh wounds in concentrated solutions (20 per cent.). Novocain, as employed in subarachnoidal anesthesia to anesthetize below the diaphragm, may be used in amounts all the way from 60 mg. to 150 mg. with safety as to toxicity when dissolved in water or spinal fluid. In spinocain, however, each ampoule contains 200 mg. of novocain, but the vehicle here has been so constructed that the novocain is confined to a certain area and the absorption is relatively slow. As a matter of

fact, Doctor Pitkin and others not uncommonly employ 3 c. c. of spinocain, and we know that as much as 4 c. c. has been used, these amounts being equivalent to 300 and 400 mg. of novocain respectively. These large quantities are, of course, not used routinely, but only in well-selected cases where the operation is high in the abdomen and where it may be anticipated to last for more than an hour. Obviously, the less novocain that is employed, the less the duration of anesthesia. A marked advance in the safety of this method was made with the introduction of novocain, the least toxic of all the local anesthetic drugs.

I strongly advise the use of the following equipment for subarachnoidal anesthesia used and advised by Pitkin, which I have used nearly one year with splendid results. Ampoule spinocain, ampoule ephedrin-novocain solution, Pitkin spinal puncture needles and hypodermic needles, Luer-Lok syringe 3 c. c., Luer-Lok syringe 2 c. c., and a Luer-Lok syringe 5 c. c., which I use more than the 3 c. c., as the advantage of the 5 c. c. is that it requires fewer aspirations and reinjections, consequently a stronger solution, with less dissemination and better and longer anesthesia of nerves affected.

#### ANATOMIC CONSIDERATION<sup>3</sup>

The spinal cord in the adult extends to a level of the upper border of the second lumbar vertebra, where it becomes continuous with the filum terminale, which extends as a bundle of connective tissue to the termination of the

dural sac at the second or third sacral vertebra. The spinal cord and cauda equina are surrounded by the same membranes as the brain, dura arachnoid and pia. The dura is a loose sheath, not attached to the bony framework of the spinal canal, but separated from it by a loose areolar tissue containing a plexus of veins which are most numerous in front and on the sides and less so posteriorly. The dural sac terminates between the second and third sacral segments.

At the beginning of the cauda equina, the nerves lie in bundles on each side with an appreciable interval between, through which runs the filum terminale. They approach each other lower in the lumbar regions and surround the filum which continues to the termination of the dural sac and blends with its attachment to the periosteum of the coccyx. On the side of the cord and in the cauda equina, the motor nerves lie in front; they are separated by the ligamentum denticulatum the distance of the cord, and by a delicate cribriform membrane in the cauda equina. This accounts for the motor nerves not being more regularly reached and affected by the anesthetic fluid in lumbar anesthesia. The arachnoid is separated by a small interspace from the dura. Outside of the dura is the epidural space, at the sides of which are rich venous plexuses and loose adipose tissue. The distance from the skin to the subarachnoid space in the lumbar region is from 4 to 6 cm., but in men with well-developed muscles it may reach a depth of 7 to 8 cm. and in fat

persons even 10 cm. The spaces between the arches of the third and fourth lumbar vertebrae are, as a rule, larger than the first and the second, while the fifth is narrower from above downward, but wider from side to side. The width of the interspace is from 18 to 20 mm. and the height from 10 to 15 mm. In abnormal cases the spinous processes of the lumbar vertebrae may, however, cover each other in a tile-like manner, rendering the introduction of the needle impossible. Strong flexion of the lumbar spine increases the height of the interspaces. Within the arachnoid membrane in the subarachnoid space is the cerebrospinal fluid; the space is largest in the lower part of the spinal canal. It communicates with the general ventricular cavity of the brain through the foramen of Magendie, in the roof of the fourth ventricle. The average amount of spinal fluid in the adult varies from 100 to 130 c. c. The pressure in the lumbar region is, in the recumbent posture, equal to 60 to 100 mm. of water. Changes in posture affect the pressure to a high degree, but not the position of the spinal fluid. The most favorable site for the lumbar puncture, according to this description, seems to be the mid-lumbar region, for here the cauda equina lies in two bundles on each side of the midline and is less likely to be injured by a needle introduced at this point. The upper edge of the fourth lumbar spine is identified by drawing a horizontal line across the back, at the level of the highest part of the iliac crests. On introducing a needle into the spinal canal, it

passes through skin, subcutaneous tissue, supraspinous and interspinous ligaments, the ligamentum subflavum, the dura, arachnoid and finally into the subarachnoid space.

#### PHYSIOLOGY OF SUBARACHNOIDAL ANESTHESIA<sup>3</sup>

The phenomena and order of physiologic action of the anesthesia are segmental, and therefore dependent upon the particular roots which the anesthetic bathes. In most cases the onset of anesthesia is without any noticeable disturbing effect upon the patient, usually appearing at the end of five minutes. There is just a feeling of warmth and tingling in the feet, extending to the legs and thighs, then a sensation of swelling and heaviness. Anesthesia appears first in the perineum, genitals and inner sides of thighs, then includes the lower extremities. There is a loss of motor power in the corresponding regions following anesthesia, with loss of patella jerk and loss of plantar and cremasteric reflexes. A feeling of malaise is sometimes experienced, with thirst, air hunger and a feeling of heaviness in the epigastrium. A feeling of heat or cold, with increased perspiration are sometimes observed. The return of sensation is in inverse order to its development, reappearing first in the parts last affected and last in the perineum and external genitals. The duration of anesthesia is usually from an hour to an hour and a half. The most notable effects of anesthesia are seen in the cardiovascular system. The blood pressure usually falls soon after the injection,

but the heart rhythm remains regular. When the upper dorsal regions are involved, the effects are more marked. The pulse rate may drop to 30 or 40 per minute and the blood pressure at the wrists to almost zero. This results from vasomotor paralysis in the anesthetized area, from unresisted vagus inhibition upon the heart and paralysis of the intercostals, limiting respiratory movement. In occasional cases these effects are so marked as to simulate a general collapse of the cardiovascular system. When such symptoms occur, the patient may be anxious and excited or so apathetic as to be oblivious to his surroundings.

There are two systems which regulate the circulation, through the heart and the gastrointestinal tract. One is the sympathetic system, and the other is the vagus. We must not lose sight of the fact that the sympathetic system is the motor or accelerator system of the thoracic organs, among which is the heart, while the sympathetic is the depressor or moderator system of the gastrointestinal tract. The vagus, therefore, acts differently in the thorax than in the abdomen, being depressor in the thorax, depressor of the heart, and accelerator or motor in the gastrointestinal tract. The direct effect upon the respiratory muscles depends upon the height of anesthesia. With paralysis of the lower dorsal segments, respiration becomes embarrassed mechanically and the action is largely diaphragmatic, but without the aid of the accessory abdominal muscles. When the phrenic nerve is involved at the fourth cervi-



cal, the diaphragm becomes paralyzed. This maximum involvement is usually reached within fifteen or twenty minutes. Artificial respiration will often maintain life until the phrenic regains its conductivity. The most notable effect upon the abdomen is the relaxation and flaccid condition of the abdominal wall. Inhibition of the sympathetics being lost, intestinal peristalsis becomes active, sometimes resulting in evacuation of the bowels, which is facilitated by the relaxed sphincter.

Nausea occurs in about 30 per cent. of cases and often followed by vomiting. As a result of the relaxation of the abdominal walls and contraction of the intestines, operations within the abdominal cavity are generally facilitated. With a low lumbar injection, the uterus retains its contractility, but receives no expulsive aid from the abdominal muscles. High injections arrest all uterine contractions. Loss of sensation of distention of bladder occurs.

#### PREPARATION OF THE PATIENT AND SUBARACHNOIDAL TECHNIQUE

The patient should be brought into as helpful a frame of mind as possible through suggestion and the operation undertaken with all the preliminary care as to physical influences as are observed in general anesthesia. The stomach and intestines should be empty at the time of operation. A hypodermic injection of morphine, gr.  $\frac{1}{8}$  to  $\frac{1}{4}$ , and scopolamine, gr. 1-300 to 1-200, is given one hour before anesthesia is induced, except in very weak patients and those suffering from chronic condi-

tions of the vital organs, which make them very poor surgical risks. The morphine and scopolamine may be repeated at time of operation or during same if advisable. It is important to have present during operations under subarachnoidal anesthesia a well-trained psycho-anesthetist for management of the patient. Several men do their lumbar punctures in sitting posture when using spinocain, but I strongly advocate to have patient lying on the side, with the knees flexed upon the abdomen, head bent forward and the back bowed out. The shoulders and hips should be in a vertical line, as a cock-screw spine makes the puncture more difficult. Clean back high and low with ether, then apply several layers of carboiodine. Inject the contents of ampoule of Pitkin's ephedrin-novocain solution over lumbar space, selected for lumbar puncture, insert Pitkin spinal puncture needle and proceed as follows:

In the following technique, Pitkin's light spinocain solution (specific gravity 1.0005) is used, and keep in mind that it floats on the spinal fluid (specific gravity 1.007). As you will remember, the spinal fluid pressure changes according to posture, but the spinal fluid position does not. The extent of anesthesia is regulated almost entirely by the degree of Trendelenburg, with the light spinocain solution. To determine the degree of Trendelenburg, a tiltometer or inclinometer is used. When anesthesia of the perineal region is desired, only 1 c. c. of spinocain is required. Inject and immediately place the patient in 18 degrees Trendelenburg, which floats

the spinocain to tip of dura. If anesthesia is to be confined to the legs, 2 c. c. of spinocain is used and expanded to 3 c. c. with spinal fluid. This amount with a 10 to 15 degrees Trendelenburg gives anesthesia to first lumbar vertebra. For anesthesia to the umbilicus, 2 c. c. of spinocain is sufficient for short operations. For prolonged operations, 2.5 to 3 c. c. should be employed in ratio to the anticipated length of the operation. Expand either amount to 6 c. c. with spinal fluid and place the patient in a 7 to 10 degrees Trendelenburg position, giving anesthesia to ninth dorsal vertebra. To extend the anesthesia to the costal margin, use 3 c. c. of spinocain and expand to 8 c. c. with spinal fluid and place patient in a 5 degrees Trendelenburg position; this gives anesthesia to the sixth or seventh dorsal vertebra. Failures occur in about 5 per cent. of patients even with a skilled technique. Each case is an individual problem. Keep patient flat during operation and from two to six hours following operation to prevent accidents. It is important for some responsible person to remain with patient all this time.

We should compare the specific gravity of the following fluids:

Spinal fluid specific gravity,	1.007
Spinocain (light) specific gravity,	1.0005
Spinocain (heavy) specific gravity,	1.109
Glycerin specific gravity,	1.25
Glucose specific gravity,	1.412
Alcohol specific gravity,	0.81
Ether specific gravity,	0.717

#### INDICATIONS AND CONTRAINDICATIONS

The indications for the use of subarachnoidal anesthesia are quite indefinite. Consider topical and regional anesthesia, and if desired effects cannot be obtained, use subarachnoidal. Confine operations to below the level of the diaphragm; its special indications then will be in those operations below the diaphragm in patients in which general anesthesia is contraindicated and local anesthesia impractical. Most physicians believe general anesthesia should be given to healthy individuals and the subarachnoidal anesthesia is unjustifiable in ordinary cases. Contraindications include those patients in a state of shock, severe hemorrhage and in most cases of hypotension; also very excitable and nervous individuals, marked involvement of the cerebrospinal system especially of the cord or cloudy spinal fluid.

#### ADVANTAGES AND DISADVANTAGES

Muscular relaxation is good and the patient is able to aid in operation when needed. It produces a negative intra-abdominal pressure which facilitates exploration and manipulation of diseased viscus. The anemia due to fall of blood pressure makes for a bloodless operation. There are usually no harmful effects upon heart, lungs and kidneys. One advantage of the nerve blocking is the interruption of the pathway of shocking impulses en route to the central nervous system.

Some of the disadvantages are fall in blood pressure, due to a transient vasomotor paralysis, with acute bulbar

anemia, possible meningism, and the results of spinal fluid leakage (such as nausea, at times vomiting and headache), respiratory paralysis, retention of urine, incontinence of anal sphincters, also the fact that if not given skillfully, the dose once injected cannot be recalled or prevented from acting. These are possible complications.

#### CONCLUSIONS.

In conclusion, may I again suggest the word subarachnoidal as a better word than spinal, as it conveys less fear to the patient?

I believe it is important to know the anatomy and physiology of subarachnoidal anesthesia to obtain better results, also to understand the Pitkin method of anesthesia.

It is important to know the possible complications and their treatment.

Subarachnoidal anesthesia has very few contraindications, and I strongly urge its method in the healthy individuals as well as the poor general anesthesia risks.

Time does not permit me to include many very important considerations.

#### BIBLIOGRAPHIC REFERENCES

1. Pitkin, G. P., Controllable Spinal Anesthesia. *Journal Medical Society of New Jersey*, 24, 425, 1927.
2. Hooper, C. W., The Development, Pharmacology and Relative Toxicity of the Modern Local Anesthesia. *American Journal of Pharmacy*, Vol. 96, July, 1924.
3. Meeker, W. R., Practice of Surgery. Dean Lewis, Vol. I, Ed. 1.

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### \*ACIDOSIS AND ALKALOSIS

BY SAMUEL H. KAGAN, M. D., Augusta, Me.

The term acidosis, originally coined by Naunyn<sup>1</sup> to apply to the ketosis of diabetes—the over-production of the abnormal ketone acids, diacetic and beta-oxybutyric—has come to be used in a much broader sense with the increased knowledge of this subject. Progress in our knowledge of this subject has been due largely to the development of special methods of blood analysis. Of the different methods suggested to serve as an index of the degree of acidosis, the CO<sub>2</sub> combining power (or content) of the blood would appear to be the most useful clinically,

although in any final analysis we are likewise interested in the actual reaction of the blood, *i. e.*, the pH or hydrogen-ion concentration.

#### THE MEANING OF pH.

According to the theory of electrolytic dissociation,<sup>2</sup> all liquids, of which water is a constituent, contain free H (hydrogen) and OH (hydroxyl) ions.

When the number of H ions exactly equals the number of OH ions, the solution is said to be neutral. If the number of H ions exceeds that of the OH ions, the solution is said to be acid.

\*Read at meeting of the Kennebec County Medical Association, April 25, 1929.



Conversely, if the solution contain an excess of OH ions, it is said to be alkaline.

The acidity of a solution increases as the number of H ions increases. Strong acids are those which are highly dissociated in solution to give a large number of H ions. Weak acids are those which are but slightly dissociated in solution, and therefore give relatively few H ions. Thus hydrochloric and sulphuric acids are strong acids, and

acetic and boric are weak acids. In other words, it is the concentration of H ions in a solution which determines the strength of an acid, and is the controlling factor in the majority of chemical reactions.

Pure distilled water will conduct an electric current to a very slight degree. This shows that a very small proportion of the water is dissociated into H and OH ions. By the mass law

$$\frac{\text{Concentration of H ions} + \text{concentration of OH ions}}{\text{Concentration of Undissociated H}_2\text{O}} = \text{a constant.}$$

Since the amount of dissociated water is relatively extremely large, it can be

taken as a constant, and the above equation, therefore, becomes

$$\text{Concentration of H ions} + \text{concentration of OH ions} = \text{a constant.}$$

By electrical conductivity measurements, this constant has been found to be 1/100,000,000,000,000 or  $10^{-14}$  at 22° C. Since in pure distilled water the number of H ions is equal to the number of OH ions, each must have a

concentration of 1/10,000,000 or  $10^{-7}$ .

It so happens that in determining the hydrogen-ion concentration with the hydrogen electrode the potentials<sup>3</sup> of this electrode are put into an equation which reduces to the form

$$\frac{\text{Potential}}{\text{Numerical factor}} = \log \frac{1}{(\text{H}^+)}$$

Thus  $\log \frac{1}{(\text{H}^+)}$  is at once obtained by the most simple of calculations. Sorensen (1909) saw that this value serves to define a hydrogen-ion concentration quite as well as the  $\text{H}^+$  itself, and he used this mode of expression and gave to  $\log \frac{1}{(\text{H}^+)}$  the symbol pH. Although Sorensen has not revealed the consideration which led to the choice of the letter p in his symbol, we might regard p as suggesting the potential (intensity) factor of acidity, according to Clark.

Just as an acid solution is said to be

normal when it contains 1 g. of ionizable hydrogen per liter, so a solution is said to be normal with respect to hydrogen ions when it contains 1 g. of ionized hydrogen per liter. Since  $\frac{1}{(\text{H}^+)}$  is the reciprocal of the normality of H ions in a solution, the pH value can also be defined as the logarithm of the denominator expressing the normality of H ions, such as N/10, N/100, N/1,000, etc.

This method of expressing the H-ion concentration has now been generally adopted. In the case of pure distilled water, in which the H-ion concentra-

tion is 0.0000001 or  $N/10,000,000$ , the pH value would therefore be the log of  $1/0.0000001$  or of 10,000,000, which is 7.0. This value 7.0 is, therefore, the neutral point on the pH scale.

It will readily be seen that the pH values below 7.0, such as 6.0, 5.0, etc., denote acidity, the degree of acidity

increasing as the numbers decrease. Since we are dealing with logarithmic values, a solution having a pH value of 6.0 contains 10 times as many H ions as one having a pH value of 7.0. Similarly, a solution of pH 5.0 contains 100 times as many H ions as one of pH 7.0.

Since by the law of mass action

Concentration of H ions + concentration of OH ions = a constant,

it is apparent that as the H-ion concentration increases the OH-ion concentration must decrease, and *vice versa*. Even in a strongly alkaline solution there are some H ions, and for the sake of simplicity it is advisable to express both acidity and alkalinity in terms of pH values. It should be remembered that above pH 7.0, or in alkalinity, a solution of pH 9.0 contains 10 times as many OH ions as one of pH 8.0, etc.

It is therefore seen that the pH value is an absolutely accurate measure of the degree of acidity or alkalinity of a solution, and we are, therefore, not dependent on such vague and meaningless terms as slightly acid or alkaline, moderately or strongly acid or alkaline, etc.

Normally the blood is uniformly maintained at a constant slightly alkaline reaction, this reaction in terms of hydrogen-ion concentration being close to pH 7.4, largely through the protective mechanism of the bicarbonates, phosphates and proteins of the blood.

It was believed that the chief deleterious effects of acidosis resulted from an increase of the hydrogen-ion concentration of body fluids, and it was pointed out that the body possesses a remarkable mechanism for maintaining

the constancy of its chemical reaction.

More recent work<sup>4</sup> has shown that the body tends to maintain its normal fixed base concentration. Among the mechanisms by which the standard alkaline reaction of the blood and body fluids is protected against variable amounts of acid arising in normal metabolism, and especially against the very large amounts produced in some pathologic conditions, is the "buffer action" of the blood.<sup>5</sup> This "buffer action," whereby the hydrogen-ion concentration is protected against the addition of acids, is due partly to the proteins of the blood, which can act either as weak acids or weak bases, but mainly to the relatively large supply of mono- and dibasic carbonates and phosphates of the fixed bases, of which sodium is the most abundant. Only when the reserve supply of fixed bases, sometimes called the "alkali reserve," has been largely neutralized does the buffer action fail and allow a change of hydrogen-ion concentration to take place. It is thus the alkali reserve of the blood and tissues which most directly protects the hydrogen-ion concentration of the body fluids. This reserve is subject to marked depletion in disease, but in

health is maintained at a fairly constant level, because most of the acid arising in metabolism is removed from the body by one or the other of the following mechanisms:

1. A certain amount of acid is excreted by the kidneys, partly as free acid, but chiefly as acid salts, mostly acid phosphates. The power of the kidneys to secrete a frankly acid urine from a slightly alkaline blood is one of their striking and important functions.

2. A notable amount of acid is neutralized by ammonia, of which there is a constant supply derived from protein catabolism, and is excreted as ammonium salts in the urine. Such ammonia as is not intercepted by acids, constituting the major portion under normal conditions, is built up into urea. In certain pathologic conditions, notably diabetes, this is an extremely important means of dealing with acids; a large part of the ammonia is diverted to this purpose and the formation of urea is correspondingly decreased.

3. Carbon dioxid, the most important acid end product of metabolism, is eliminated chiefly in two ways: (a) The larger part is carried off by the lungs as follows: Carbon dioxid combines with the normal carbonates of fixed bases which constitute the chief alkali reserve of the blood plasma, and is carried from the tissues to the lungs in the venous blood as bicarbonate. Here the carbon dioxid passes over into the alveolar air, and the alkali again takes the form of normal carbonate and returns to the tissues, where it again takes up carbon dioxid. (b) Another

portion of the carbon dioxid is neutralized by ammonia and is then built up into urea and excreted by the kidneys.

The mechanisms mentioned above are adequate to meet the ordinary demands made by acids arising in normal metabolism. Only a small portion of the acid is allowed to attack the important fixed bases of the blood and tissues. This forms neutral salts which are excreted in the urine, but the lost base is soon replaced from the food, and the alkali reserve of the body thus remains undiminished.

Only when the loss of base is too rapid for replacement from the food does the alkali reserve become very seriously depleted, and the clinical symptoms recognized as characteristic of acidosis then appear. Finally, as a terminal event, the hydrogen-ion concentration of the blood may become appreciably increased.

Thus acidosis may be defined, in the words of Sellards, as "a diminution in the reserve supply of fixed bases in the blood and tissues of the body, the physicochemical reaction of the blood remaining unchanged except in very extreme conditions."

Alkalosis is defined as describing those conditions in which there is an increase in the alkali reserve of the blood and tissues of the body.

Since the fixed bases of the blood constitute the chief means of transporting carbon dioxid from the tissues to the lungs, depletion of fixed base reduces the capacity of the blood to carry carbon dioxid. This leads to accumulation of carbon dioxid in the tissues,



and consequent blocking of the processes of oxidation, so that the individual suffers from asphyxia exactly as if he were deprived of air. The respiratory center is stimulated, leading to increased pulmonary ventilation, which, when marked, becomes hyperpnea or air hunger, a most characteristic clinical sign of acidosis.

Conditions in which acidosis might occur may, following Macleod, be outlined as follows:

I. Increase of Acids in the Body.

1. Excessive formation of acids.

(a) Excessive formation of beta-oxybutyric and diacetic acids from defective oxidation of fats in disturbances of carbohydrate metabolism or in carbohydrate starvation. This is a common and important form of acidosis, sometimes called "ketosis," and is best seen in diabetes mellitus. It is sometimes found after anesthesia.<sup>6</sup>

(b) Excessive decomposition of proteins, as in fevers.

(c) Formation of acid in excessive intestinal fermentation.

2. Accumulation of acids because of defective elimination.

(a) Accumulation due to diminished ability of the kidneys to excrete acid, as in chronic interstitial nephritis.

(b) Accumulation of carbon dioxide in asphyxial conditions, as cyanotic pneumonia and decompensated cardiac cases, and morphine narcosis.

3. Administration of acids.

Large therapeutic doses of hydrochloric acid may cause acidosis of sufficient degree to be detected by certain of the laboratory tests.

II. Decrease of Base.—There may be a primary loss of alkali reserve by abstraction of fixed base, as in very severe diarrheal conditions, pancreatic and biliary fistula, etc. Lack of sufficient base in the food to restore the normal loss might conceivably be a factor in some cases.

Clinically, acidosis of sufficient degree to have any serious significance occurs in only a few conditions: Diabetes mellitus, in which the acidosis is due to excessive production of beta-oxybutyric and diacetic acids; acute nephritis and advanced chronic interstitial nephritis, in which there appears to be accumulation of acid from failure of the kidneys to excrete acids normally; cholera, in which the acidosis is due partly to abstraction of base, partly to co-existing nephritis; and certain diarrheal conditions of childhood, in which the cause of the acidosis is uncertain.

Milder grades of acidosis without serious clinical significance may occur in a variety of conditions, notably acute rheumatic fever, advanced cachexias, and severe anemias. Post-operative acidosis is rare apart from proved diabetes and advanced renal insufficiency.<sup>7</sup>

TESTS FOR ACIDOSIS.

The state of acidosis can be diagnosed by laboratory means long before definite clinical symptoms develop. The various laboratory tests are based upon one or another of the facts regarding the cause and nature of acidosis, which have been mentioned above, and may be classified as follows:<sup>5</sup>

I. Tests which measure the hydrogen-

ion concentration of the blood. None of these need be given here. While an increase of hydrogen-ion concentration is indeed very definite evidence of acidosis, yet, as has been shown, the buffer action of the carbonates, phosphates, and proteins of the blood is so effective that hydrogen-ion concentration changes only when the acidosis is very severe.

II. Tests which measure the alkali reserve—practically the buffer power of the blood and tissues, directly or indirectly. Since acidosis is essentially a depletion of this reserve, these tests are theoretically the best and most generally applicable provided the technical methods are satisfactory.

1. Titratable alkalinity of the blood. No simple and accurate method is available.

2. The bicarbonate tolerance test of Sellards. This consists in finding the amount of sodium bicarbonate which can be given by mouth or intravenously without causing the urine to become alkaline to litmus. The tolerance of a normal individual is about 3 to 10 gm.; in acidosis it may reach 100 to 150 gm.

It is assumed that this amount is retained in the body in order to restore the depleted reserve. This is one of the most satisfactory clinical tests for acidosis, for it is applicable to all forms, is sufficiently sensitive to detect the slight grades which produce no clinical symptoms, furnishes a very definite measure of the degree of acidosis, and at the same time supplies the approved treatment. One has to watch out for giving unnecessary and injurious amounts of bicarbonate in severe cases.

3. The carbon dioxid carrying power of the blood. Carbon dioxid is carried to the lungs chiefly in combination with the fixed bases which are the principal buffer substances of the blood. When these are diminished the capacity of the blood to carry carbon dioxid is correspondingly diminished. The carbon dioxid combining power of the blood plasma is then a useful measure of the reserve of fixed bases in the blood, and may be determined by the method of Van Slyke and Cullen. This is probably the most reliable test for acidosis, and is applicable to all forms.

CO<sub>2</sub>—Combining Power of Blood Plasma in Normal Subjects and in Acidosis.

Condition of Subject.	CO <sub>2</sub> Capacity of Plasma. c. c. to 100.
Normal resisting adult—extreme limits .....	77-53
Mild acidosis—no visible symptoms .....	53-40
Moderate acidosis—symptoms may be apparent .....	40-31
Severe acidosis—symptoms of acid intoxication .....	Below 31
Lowest CO <sub>2</sub> observed with recovery .....	16

Compiled from Stillman, Van Slyke, Cullen and Fitz.

4. Carbon dioxid tension of alveolar air. The percentage of carbon dioxid in the expired air depends upon the

power of the blood to transport carbon dioxid, that is, upon the supply of fixed bases, and, other things being equal,

varies directly with it. Other factors which influence the carbon dioxid tension of expired air are increased pulmonary ventilation and changes in the lungs which interfere with the exchange of gases. The former is best illustrated by the effect of high altitudes. Marriott's method is the simplest for determining the percentage of carbon dioxid in alveolar air.

III. Tests which show excessive or abnormal formation of acids within the body. When such is demonstrated, acidosis, or the tendency to acidosis, is assumed.

1. Urine tests for abnormal acids, practical only in beta-oxybutyric and diacetic acids.

2. Urine tests for excessive elimination of acids by

(a) Quantitative estimation of ammonium salts.

(b) Total acidity.

#### ALKALOSIS

Practically there are only three conditions in which the clinician suspects alkalosis and wishes laboratory confirmation.

1. Overdosage of sodium bicarbonate or alkali, particularly in the presence of renal injury. This sometimes occurs in the Sippy treatment of peptic ulcer.

2. Conditions associated with disturbed motility of the gastrointestinal tract. These conditions are usually accompanied by a fall in blood chlorides, and a rise in protein nitrogen. Alkalosis may occur without alkali therapy in cases of obstructing ulcers and continuous secretion of acid which is lost

by vomiting. Patients with this type of alkalosis are tremendously sick and toxic in contradistinction to those with alkalosis resulting from an overdose of alkali, in which the symptoms may be very mild.

3. Tetany. This condition presents many different types, but one large group is associated with alkalosis. This may occur as a result of overbreathing or hyperpnea, or a result of the conditions listed under 1 and 2. As a rule, when the patient has a carbon dioxid combining power of more than 100 per cent. by volume, he may have tetany, but this rule is subject to many exceptions.

#### SYMPTOMATOLOGY OF ACIDOSIS AND ALKALOSIS

The symptoms of acidosis and alkalosis may be surprisingly similar.<sup>8</sup> Apparently they are an expression of an upset in the acid-base balance. In an experimental study of this subject by Koehler,<sup>9</sup> virtually every symptom elicited during acidosis was noted during alkalosis, namely, loss of appetite, lassitude, nausea and vomiting, headaches, weakness, listlessness, muscle aches and drowsiness, these ill effects being produced through depression of tissue oxidation. Hyperpnea or air hunger is a characteristic clinical sign of acidosis, but is a comparatively late symptom. Opposite effects are apparently obtained in regard to weight and hydration; during acidosis there is a decrease in weight with signs of dehydration, while during alkalosis there is evidence of hydration with increase in weight.



## TREATMENT

Such changes as have been described are merely symptoms of some underlying condition that has disturbed the equilibrium existing within the body fluids and cells. The causes must be sought out, and, if possible, removed. Occasionally restoration of equilibrium may be hastened by the administration of the substances of which the body has been depleted.

The acidosis of acute nephritis can be relieved by any method that relieves convulsions and lack of blood oxygen. The administration of sedatives and of oxygen is therefore indicated. In persistent acidosis of severe chronic nephritis little can be done in the way of reducing accumulated acid. Oral administration of such salts as calcium acetate has some effect in causing excretion of phosphate by the bowel. The other and more serious factor—the diminution of fixed base—can be met by the administration of alkali in addition to that present in the ordinary diet. In mild cases a diet can be constructed that has a more alkaline ash. In severe cases, in the absence of vomiting and diarrhea, additional alkali may be given by mouth or intravenously. A mild or even moderately severe acidosis in the presence of nephritis may persist for years and apparently not cause any harm of itself, and this acidosis may even prevent the occurrence of tetany and so be beneficial.

The treatment of diabetic acidosis with insulin and water is in many cases adequate. Oxidation of the ketone acids results in a release of the base

bound by these acids to restore partially the bicarbonate. Such restoration of bicarbonate may be very slow, and hypoglycemia may occur before there is a significant increase in the base bicarbonate of the plasma. The administration of dextrose along with insulin prevents hypoglycemia, but can increase the rate of acetone body oxidation only up to a certain point. When the plasma bicarbonate is slowly replenished, administration of alkali is effective in relieving the acute symptoms of acidosis, and its administration is indicated.

Since the factors operating to produce acidosis in cases of marked diarrhea and anhydremia are water loss and loss of bicarbonate by the bowel, the correction of this type of acidosis should be logically by the administration of water and sodium bicarbonate. Until recently physiologic solution of sodium chloride or Ringer's solution was used, but an effect often deleterious in that administration is followed by a retention of the salt, which results in partial substitution of the chlorides for bicarbonate in the plasma, and is followed by secretion of the bicarbonate in the urine, thus increasing the acidosis. If dehydration is caused entirely by vomiting, as, for instance, in pyloric or high intestinal obstruction, there occurs a loss of gastric juice which contains hydrochloric acid and a small amount of fixed base. Such dehydration would therefore give rise to a diminished base chloride content of the plasma with increase in the base bicarbonate, or, in other words, alkalosis. In the light of the foregoing facts, the administration

of dextrose solution rather than saline is indicated.<sup>4</sup>

Treatment of alkalosis. Overdosage with alkali bicarbonate in cases of acidosis and in the treatment of gastric and duodenal ulcer should be guarded against. Oftentimes symptoms of alkalosis may not occur, though there may be characteristic changes in the composition of the blood. This circumstance affords additional justification for the use of insoluble alkalis, such as calcium carbonate, tribasic calcium phosphate, tribasic magnesium phosphate and magnesium oxide, for excess of these beyond the needs of neutralization does not lead to development of free alkali, and the clinical symptoms of alkalosis are unlikely to appear, especially if obstruction or vomiting does not occur. It is important to administer water and sodium chloride, especially as a preoperative and postoperative measure, as there is usually a loss in chlorides. There is growing evidence that some of the symptoms frequently ascribed to

gastric disorder may in part be due to alkalosis.

#### REFERENCES

1. Myers, V. C., M. A., Ph. D., Practical Chemical Analysis of Blood. C. V. Mosby Co., St. Louis, 2nd Ed., 1924, pp. 96-120.
2. Taylor, W. A., Ph. D., The A B C of Hydrogen-ion Control. La Motte Chemical Products Co., Baltimore, Md., 4th Ed., 1928, p. 17.
3. Clark, W. Mansfield, M. A., Ph. D., The Determination of Hydrogen Ions. Williams & Wilkins Co., 2nd Ed., 1922, Chapter 2.
4. Marriott, McKim, M. D., and Hartmann, Alexis F., M. D., St. Louis. *Journal American Medical Association*, 91, 1675-1679, Dec. 1, 1928.
5. Todd, J. C., Ph. B., M. D., and Sanford, A. H., A. M., M. D., Saunders, 6th Ed., 1927, pp. 563-569.
6. Myers, Victor C., Ph. D., Practical Suggestions Regarding Biochemical Diagnostic Methods. *Journal American Medical Association*, 91, 172, 1928.
7. McVicar, C. S., M. D. *Journal American Medical Association*, 89, 1853, 1927.
8. Editorial. *Journal American Medical Association*, 91, 1292, 1928.
9. Koehler, A. E., The Effect of Acid and Base Ingestion upon the Acid Base Balance. *Journal Biology and Chemistry*, 72, 79 (March 1927).

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### \*PRESIDENT'S ADDRESS

By DR. G. W. UPTON, Sherman, Me., President of the Aroostook County Medical Society

*Gentlemen* :—We are here to-day at a meeting of the Aroostook County Medical Society, composed of members engaged in the practice of medicine, a learned profession embracing a great range of knowledge and skill, one of the first requisites being as much knowledge as possible of the structure and

functions of the various parts which go to make up the human system. Unless we fairly understand the various functions, such as digestion, absorption, circulation, respiration, nutrition, etc., as carried on in health, we can do but little in disease. What does the phrase "practice of medicine" mean? Does it

\*Read before the annual meeting of the Aroostook County Medical Society.

mean solely treatment by drugs or medicines, or is it in a broader sense the use of any rational or reasonable means to combat deviations from health, the causes of which are many and the effects widely different. Some involve a change of function and others of structure, so it would be difficult to adopt any one method as applicable to the treatment of all. Take the contagious and infectious diseases caused by the entrance into the system of germs, which, finding proper conditions, develop into measles, scarlatina, typhoid, diphtheria, etc., but thanks to years of scientific study and investigation we have means at our command in the form of serums and antitoxins to neutralize or combat the action of these poisons and aid greatly in the saving of human life and lessening the ravages of epidemics. The application of medicine or therapeutics depends on what condition we wish to bring about. In a state of fever, we aim to control the production of heat and its dissipation throughout the body. If drugs are used, their physiological action has been determined by careful research, so that selection may be made accordingly. At this very point comes in the skill of the physician and his judgment in a given case as to what or what not to do. Science has done much, but it is left to us how to apply the knowledge in its proper place. Here is where one makes a success and another does not.

One man will go to the bedside of the suffering patient and recognize the various symptoms present and understand their meaning. He is in a much

better position to care for the sick than the fellow with a whole lot of knowledge, but, through lack of ability, unable to apply it. How eagerly the sufferer will watch the expressions on the doctor's face. A look of cheer, a smile will go a long way in boosting up his fading courage. People have always sought means of relief from suffering, and as that is from various causes, different methods of treatment have been devised and schools of widely different principles established, but all seeking towards one end.

The history of medicine dates far back into the ages, in ancient Greece the school of Hippocrates perhaps being the most prominent. He recognized not only the healing power of nature, but also the efficacy of art, as we do at the present time. Later, through the Grecian conquests, schools of medicine sprang up in Alexandria, the greatest service produced by these schools, especially that of Herophilus, being in the study of anatomy. The Romans were not so prominent in the study of medicine, those so engaged coming mainly from Greece. In some countries the healing art was more or less connected with religion, as in Egypt and India, where the clergy were supposed to employ the powers of healing. Among the ancients the great importance of a knowledge of structure, function and of chemistry was recognized as necessary, but with the means at hand to-day to look into this body of ours, the microscope to examine the tissues and their cellular make-up, both normal and pathological, chemistry to find out the various elements and whether they are combined in their proper proportions to maintain health, we are in a better position than ever to practice our profession, with the high and noble ideal before us of relieving suffering humanity.



## NOTICES

### **United States Civil Service Examinations**

The United States Civil Service Commission announces the following open competitive examinations:

PHYSICIAN, \$3,800 A YEAR

ASSOCIATE PHYSICIAN, \$3,200 A YEAR

Applications for the above-named positions must be on file with the Civil Service Commission at Washington, D. C., not later than December 30.

The examinations are to fill vacancies in hospitals of the Veterans' Bureau for duty throughout the United States.

The entrance salaries are as indicated above. Higher salaried positions are filled through promotion.

Competitors will not be required to report for examination at any place, but will be rated on their education, training and experience.

On account of the needs of the service, papers will be rated as received and certification made as the needs of the service require.

Full information may be obtained from the United States Civil Service Commission, Washington, D. C., or from the secretary of the United States Civil Service Board of Examiners at the post office or custom house in any city.

### **United States Civil Service Examinations**

The United States Civil Service Commission announces the following open competitive examinations:

ASSOCIATE MEDICAL OFFICER

ASSISTANT MEDICAL OFFICER

Applications for associate and assist-

ant medical officer must be on file with the Civil Service Commission at Washington, D. C., not later than December 30.

The examinations are to fill vacancies in hospitals of the Public Health Service, the Indian Service, and in other establishments of the federal classified service throughout the United States.

Competitors will not be required to report for examination at any place, but will be rated on their education, training and experience.

On account of the needs of the service, papers will be rated as received and certification made as the needs of the service require.

Full information may be obtained from the United States Civil Service Commission, Washington, D. C., or from the Secretary of the United States Civil Service Board of Examiners at the post office or custom house in any city.

### **Ether Supply Watched Closely by Government Chemists**

The recent seizure of ether at Boston and Providence by the Food, Drug and Insecticide Administration of the United States Department of Agriculture has brought from the department the statement that the sampling of ether on the market is carried on continuously and extensively by inspectors and chemists of the Food, Drug and Insecticide Administration. Regulatory control of ether to prevent the use of the substandard product is faced with

certain difficulties, say officials of the department charged with the enforcement of the food and drugs act. The technic of the manufacture and packaging of ether has not yet been perfected to a point where there is absolute assurance that the ether meeting every requirement at the time of packaging will not upon standing deteriorate to a point where it will not meet the standard of the U. S. Pharmacopœia. Progress has been made in the development of manufacturing technic, but the problem has not been finally solved, the officials say. This situation necessitates very frequent and comprehensive inspection in order to prevent the consumption of substandard ether.

### **The American College of Surgeons**

The American College of Surgeons will hold its nineteenth annual Clinical Congress in Chicago, October 14th to 18th. Headquarters will be at the Stevens Hotel. An intensive program is being planned to make this homecoming event the greatest in the history of the college. The Hospital

Standardization Conference will consist of morning and afternoon sessions on Monday to Thursday inclusive. The Annual Convocation of the college will be held on Friday evening. The fellowship address will be delivered by Dr. Glenn Frank, President of the University of Wisconsin. The annual meeting of the governors and fellows will be held Thursday afternoon, followed by a symposia on cancer and bone sarcoma. An all-day session on traumatic surgery will be held on Friday, in which leaders in industry, labor, indemnity organizations and the medical profession will participate. A special program has been arranged that will be of interest to those whose practice is limited to surgery of the eye, ear, nose and throat. A feature of the Congress will be the showing of surgical films that have been produced under the supervision and approved by the Board on Medical Motion Pictures of the College. New developments in color photography will be demonstrated. In addition to the commercial exhibits, there will be scientific exhibits by the departments of the college. A rate of one and one-half the regular one-way fare has been granted on railroads of the United States and Canada to those holding convention certificates.

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### **NEW AND NON-OFFICIAL REMEDIES**

#### **Abbott Laboratories:**

Abbott's Viosterol Cod Liver Oil.

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Hypodermic Tablets Ephedrine Sulphate—Lilly, 0.016 gm. ( $\frac{1}{4}$  grain)

Hypodermic Tablets Ephedrine Sulphate—Lilly, 0.0325 gm. ( $\frac{1}{2}$  grain).

Lilly's Ephedrine Jelly.

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Syrup No. 111 Ephedrine Sulphate.

#### **Mead Johnson & Co.:**

Mead's Powdered Lactic Acid Milk,  
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## American Association for the Study of Goiter

The Executive Council of the American Association for the Study of Goiter has instructed me to inform you that a prize of three hundred dollars (\$300.00) and a medal of honor will be awarded by the association to the author of the best essay based upon original research work on any phase of goiter, presented at their annual meeting at Seattle, Washington, in September, 1930.

Competing manuscripts must be in the hands of the Corresponding Secretary by July 4, 1930, so that the award committee will have sufficient time to thoroughly examine all data before making the award.

Full particulars of other regulations governing details of the offer will be furnished on application.

If you will kindly give the contents of this letter full publicity, especially

among those interested in research work, we will greatly appreciate it.

The American Association for the Study of Goiter hopes this offer will stimulate valuable research work on the many phases of goiter, especially on its basic cause.

J. R. YUNG,  
*Corresponding Secretary.*

Rose Dispensary Bldg.,  
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### \*THE SURGICAL ASPECTS OF DIABETES

By DR. LELAND S. MCKITTRICK, Boston, Mass.

#### INCIDENCE AND IMPORTANCE OF SURGERY IN DIABETES

The diabetic of to-day needs the surgeon. One in three (792 of a group of 2,179) diabetic patients previously reported<sup>1</sup> had a condition the treatment of which was operation. In this group 507, or 25 per cent., already had been operated upon. The mortality was high, but it was the mortality of delay and not of operation.

The diabetic patient is not only subject to the same conditions which form the bulk of non-diabetic surgery, but because of a much lowered general and local resistance, probably as a result of abnormal carbohydrate metabolism, has forever hanging over him the spectre of a serious infection, either of the skin or an extremity whose circulation already may be failing; conditions which in patients with normal carbohydrate metabolism are but lightly treated by the patient or physician, but which in

the presence of diabetes may become surgical emergencies.

I shall always remember a large diabetic carbuncle operated upon by Dr. Jones during my early association with him. The man, about sixty years of age, consulted one of our well-known surgeons because of a small boil on the back of his neck. There was sugar in his urine. *In the surgeon's office, under novocain anesthesia*, this small lesion was opened. Three weeks later he was brought to the New England Deaconess Hospital dying from a carbuncle extending from the occiput to midscapular region and from the sternomastoid muscle of one side to that of the other.

Unfortunately, these patients are not as resistant to surgical attack as the bulk of patients upon whom our practices are built. Not only does a surgical complication disturb the balance of a controlled diabetic, but the abnormal response of these patients to various

Read before the annual meeting of the Maine Medical Association, Poland Spring, Me.,  
June 18, 1929

stimuli necessitates accurate and painstaking care of both the patient and his surgical lesion. It takes but few such cases in the hospital at one time to impress those of us responsible for their care with the fact that the intricacies of the surgical diabetic require the combined efforts of both surgeon and internist, working in close harmony; each interested in and responsible for his own phase of the situation and ready to give personal attention to the many details which successful results demand. I fully appreciate that this is the ideal, and that for many of you it is impossible. I feel, however, that those of you not so fortunate in having proper hospital, medical and surgical facilities available will rest much easier if you entrust the care of these very trying, uncertain cases to others more happily situated.

#### PROBLEMS IN DIAGNOSIS

It has been suggested already that the reaction of a diabetic to stimuli is abnormal if compared to the non-diabetic. Possibly he is so accustomed to physical insults of one kind or another that such a thing as the pain of an ordinary attack of appendicitis is of too little consequence for him to mention. More likely, however, a small ulceration of an appendix is as insidious as many of the superficial infections we see, or as elusive as the symptomless pulmonary tuberculosis of which Joslin has spoken so much. Whatever the factors involved, it is well to remember that the sudden severe pain of perforation may be the first symptoms of an acute ap-

pendicitis. I would remind you also that beginning coma can simulate every finding of an acute abdominal catastrophe—severe pain, rigid abdomen, rapid, weak pulse, leukocytosis and vomiting. The surgeon, therefore, must by experience develop different standards of diagnosis for the diabetic than those he is accustomed to use for the non-diabetic. He must be painstaking in the details of a history and alert for minor points to be picked up in his examination, if he is to avoid serious mistakes. This holds not only for abdominal surgery, but even more so in making the decision as to the type operation, if any, to do on a given infected or gangrenous foot. With few exceptions there is sufficient clinical evidence to be obtained from a careful examination of a diabetic foot for the surgeon to determine accurately the lowest point at which amputation will be safe.

#### PRINCIPLES OF TREATMENT

I believe I am right when I say that no patient of to-day ought to die in diabetic coma. He will die of surgical complications, however. Therefore, in surgical emergencies the surgical condition takes precedence over the diabetes, and, if indicated, should be treated at once, regardless of the presence of sugar or acid in the urine. I should like to remind you that I say this not from the experience of an internist, but from that of a surgeon who has never assumed the responsibility of the treatment of diabetes, but who has been privileged to operate upon diabetic patients at whatever time their surgical



condition demanded with the assurance that if he could control the surgical lesion the patients would get well. This bespeaks a spirit of co-operation between physician and surgeon that leaves nothing to be desired, a co-operation which is the basis of the successful treatment of the diabetic patient.

#### PRE-OPERATIVE PERIOD AND PREPARATION.

The time available for preparatory measures depends, of course, upon the urgency of the surgical lesion. Rarely, if ever, should an urgent operation be postponed for the sake of diabetic treatment. When possible, however, the patient should be in the hospital two or three days prior to operation, in order that surgery may be done under the best possible conditions. I cannot go into the pre-operative dietary and insulin treatment here, the details of which obviously vary with the condition of the patient, the operation and the time available. In general:

(a) The patient should go to operation with a store of glycogen in his liver.

(b) It is unwise, and at times dangerous, to attempt by intensive insulin

treatment to make an untreated diabetic rapidly sugar free in preparation for operation.

(c) While operating in the presence of acidosis increases the responsibilities of both surgeon and internist, it is preferable to delay in certain surgical emergencies.

#### POST-OPERATIVE TREATMENT

Every diabetic patient operated upon is a candidate for coma. Fluids by mouth, rectum, under the skin, and, if necessary, by vein, are essential. A pre-operative store of glycogen must be maintained for several days, even at the expense of a little sugar in the urine. Insulin is given by the urine and not by the clock. The urine is tested for sugar by Benedict's test every one to four hours, depending upon the condition of the patient. Insulin is given as follows: 15 units if orange; 10 units if yellow; 5 units if green; none if sugar free. Nourishment is given as soon after operation as the patient can retain it. From 50 to 75 grams of carbohydrate should be retained on the day of operation. The following is a typical dietary order for the first twenty-four hours.<sup>2</sup>

Food		Carbo- hydrate	Protein	Fat
Strained orange juice,	400 c. c.	40	0	0
Water oatmeal gruel,	500 c. c.	20	5	2
Unnedas,	2	10	1	1
Milk,	120 c. c.	6	4	4
		<hr/> 76	<hr/> 10	<hr/> 7

In the more urgent cases carbohydrate may, if necessary, be given as intravenous glucose. For the succeed-

ing few days it is better not to attempt to force too much food upon the patient, a small amount retained being better

than a large amount vomited. Likewise, a small amount of sugar in the urine for four or five days may be safer than too active attempts at its utilization. In this connection it is well to remember that a persistent glycosuria or hyperglycemia may be the first evidence of sepsis in the operative field, and the response will be better if the infection is drained than if the insulin doses are increased too much.

#### ANESTHESIA

The selection of anesthesia is of utmost importance. Whatever anesthetic is chosen for a given case it must be one which is best adapted to the individual patient, to the operation, to the surgeon, to the anesthetist, and to conditions under which the operation is performed. When possible, local or regional novocain is the anesthetic of choice. In experienced hands spinal novocain has given excellent results. It is used in all of our work on the lower extremities, perineum, rectum, and in most of our abdominal surgery. Ethylene-oxygen is the best of the general anesthetics for the diabetic patient. Its use is not general, however, and if not available nitrous oxide-oxygen is a very good substitute. In either case the peritoneum should always be infiltrated carefully with novocain, and, if necessary, a small amount of ether used, enough to obtain sufficient relaxation to make a given abdominal operation safe. Ether should rarely be used in diabetic operations and never for operations upon the extremities for the drainage of carbuncles, or similar lesions. It is and can be used for certain abdom-

inal operations, but, except in a few hands, does increase the risk of operation, and its use places additional responsibility upon the physician and surgeon. It may be used satisfactorily in combination with novocain, as described by Jones<sup>3</sup> for operations on the gall bladder. The abdominal wall is infiltrated with novocain and opened. When the operation has progressed as far as possible without hurting the patient, a primary ether is given until the painful part of the operation is completed. The ether is then removed and operation finished under novocain anesthesia.

Much interest is being taken now in the use of intravenous anesthetics, and it is quite possible that the near future may see the development of drugs suitable for this purpose. This type of anesthesia, however, is too uncertain to offer the diabetic patient of to-day much help.

#### SPECIFIC LESIONS

It is impossible in so short a time to more than touch upon a few of the most important lesions.

##### (a) *Gangrene and Infection of the Lower Extremities.*

The diabetic with gangrene is usually the mild diabetic. Untreated surgically, he will probably die of extensive local or more frequently general infection. The condition is always to be regarded as a possible emergency and definite treatment instituted early. In general, the cold, painful, pulseless foot, regardless of the extent of gangrene, has a poor prognosis and amputation through or above the mid-lower leg

will be necessary. If amputation is to be done, and the patient's general condition is such that he will not be able to use an artificial limb, the level of operation ought never to be below the lower third of the thigh. On the other hand, it must be remembered that in carefully selected cases either a Gritti-Stokes or a lower leg amputation can be safely done and is indicated in over 50 per cent. of the cases.

If pulsation is present in the dorsalis pedis artery a properly done amputation of one or more toes is frequently successful. Injudicious amputation of toes, however, is dangerous and cases should be selected with the greatest care.

(b) *Carbuncles.*

Next to gangrene, a carbuncle is the most characteristic of diabetic surgical lesions. They vary in diameter from 2 to 20 centimeters. They are not only disabling, but carry a high mortality—10 per cent. to 40 per cent., depending upon the degree of neglect before proper treatment is instituted. There is no one therapeutic procedure which is comparable to properly done incision and drainage. X-ray therapy is a substitute for poultices, not for surgery. Hospital care, detailed management of the diabetes, good frequent poultices of flaxseed or saturated boric solution until condition is localized (but not softened), and extensive crucial incisions from just beyond the limits of induration, with complete undermining of the flaps, will in all but the most serious cases give good results. Local

anesthesia should never be used. Procrastination in association with incomplete surgery kills alike the patient with a carbuncle or one with gangrene.

(c) *Gallstones.*

Gallstones are probably a little less than twice as common in diabetics as in non-diabetic adults over twenty-five years of age. Moreover, the gallstone diabetic is a mild diabetic. Unless there is some contraindication, operation is even more indicated when diabetes is present than absent. Cholecystectomy is the procedure of choice, but it must be remembered that cholecystostomy can be more easily done and at a much less risk in the very sick patients. Not only does the patient get the usual relief from operation, but the carbohydrate tolerance is frequently increased by removal of such a focus of infection.

(d) *Appendicitis.*

Insulin gives us the robust diabetic children of to-day. Surgery must protect them from the dangers of acute appendicitis. A mortality of 14<sup>1</sup> per cent. is too high a price to pay for failure to receive proper treatment. Early accurate diagnosis and immediate surgery will make appendicitis a safe disease, whether the patient has diabetes or not.

#### BIBLIOGRAPHY

<sup>1</sup>McKittrick and Root: *Diabetic Surgery*, Philadelphia, Lea & Febiger, 1928, p. 19.

<sup>2</sup>McKittrick and Root: *Diabetic Surgery*, Philadelphia, Lea & Febiger, 1928, p. 66.

<sup>3</sup>Jones, McKittrick and Sisco, *Boston Medical and Surgical Journal*, 1924, 191, 709.

<sup>4</sup>McKittrick and Root: *Diabetic Surgery*, Philadelphia, Lea & Febiger, 1928, p. 243.



## \*THE MEDICAL ASPECTS OF SURGICAL DIABETES

By ELTON R. BLAISDELL, M. D., F. A. C. P., Portland, Me.

The subject is obviously a large one, and I shall only touch on the more important points.

Surgical diabetes is very important from the standpoint of the medical man, as well as from the standpoint of the surgeon. The number of surgical diabetics is increasing every year. This seems a very broad statement, in view of the fact that we have had at our disposal, for the past five years, a powerful and efficient remedy in insulin. There are two apparent causes for this increase: First, at the present time most any diabetic, no matter how severe his disease may be, can undergo any properly conducted surgical operation, providing he has received intelligent pre-operative treatment; and second, insulin has kept alive many diabetics who would otherwise have died in coma. During the first few years following the discovery of insulin, the mortality from diabetes markedly decreased, but recent reports indicate that the death rate is again increasing—not from coma, as deaths from this source have certainly decreased, but from carbuncles, acute infections, arteriosclerosis and gangrene. These same patients who were saved from a death in coma or perhaps starvation, later succumbed to one of these affections. We know that although insulin may temporarily brace up the patient, allow him to eat more, thereby tending toward obesity, it does not necessarily prevent diabetic arteriosclero-

sis and infections. On the other hand, the individual who has been fattened with insulin and a high caloric diet is more susceptible to these disorders.

One of the earliest references to the association of arteriosclerosis and diabetes, in the same patient, was made by David Riesman<sup>1</sup> in 1917. Allen,<sup>2</sup> in 1924, called attention to the fact that arteriosclerosis was probably demonstrable in every diabetic case past middle age, in which glycosuria had been present for ten years or more. The majority of clinicians at that time were of a different opinion, as they apparently based their conclusions on their inability to find any constant parallelism between hypertension and diabetes. This was before the brilliant work of Volhard, who taught us that there may not be any direct relationship between atheroma of the larger vessels and hypertension, and that the former may or may not be preceded by hypertension. In 1928, Joslin<sup>3</sup> found that the percentage of his diabetics examined showed arteriosclerosis for successive five-year periods, as follows: The first five years, 40%; the second five years, 56%, and the third five years, 83%. One must certainly agree with Joslin that this is enough to indicate the frequency of arteriosclerosis in the diabetic and its development at an early stage.

The logical question arises, how are we to prevent these complications? We cannot prevent them until we know

\*Read before the York County Medical Society, Sanford, Me., April, 1929.

what causes them. Joslin<sup>4</sup> has recently laid great stress upon fat as the predominating factor in the cause of vascular changes in the diabetic, and he believes that obesity and high fat diets are the chief causes. Allen<sup>5</sup> thinks that hyperglycemia is of equal importance, and after a long series of experimental studies in animals and human beings, concluded that, apart from a sufficient supply of fat in the diet, the one indispensable prerequisite for a marked increase of fat in the blood is the existence of active symptoms in the form of glycosuria and hyperglycemia, and that even severe cases with glycosuria abolished by treatment never exhibit any extreme grade of lipemia, however high the fat intake. J. Hepburn and Duncan Graham,<sup>6</sup> in a recent article, said: "The susceptibility of diabetic patients to infection and the detrimental effects of infection in the clinical course of diabetes, particularly in the untreated diabetics, are only too well known. Is it not probable that in the diabetic the premature development of vascular changes is the result of infection acting in the presence of abnormal metabolism? If this is the case, one's effort ought to be directed to prevention and eradication of infection, as well as the restoration of a normal metabolism."

However different our opinions may be on this subject, it seems to me that experience has taught us that high fat diets, hyperglycemia and glycosuria are abnormalities, and that all can be eliminated in the scientific treatment of diabetes. This, together with the re-

moval of infections, will go a long way in the prevention of complications in the diabetic.

In order to make my remarks as brief as possible, I have made a rough outline of the surgical conditions in which the medical man is frequently called upon to treat in conjunction with the surgeon.

1. Abdominal surgery. Here, as in other cases, one must be guided by the severity of the diabetes and the urgency of the operation. If the case is not an emergency, and if the diabetes is moderately severe, a few days or a week of treatment is best for the patient before the operation. From 80 to 120 grams of carbohydrate should be prescribed. This amount is necessary to prevent acidosis and to guard against cardiac accidents in those past middle age. I have recently observed fatal attacks of coronary infarct in four elderly diabetics who had, for a few weeks before, subjected themselves to a low carbohydrate intake rather than administer a few units of insulin and have a well-balanced diet. The amount of protein will depend upon the weight of the patient and the height of the blood nitrogen, and the amount of fat will depend upon the strength and weight of the patient and the presence or absence of urinary acetone or diacetic acid. Enough insulin is given to keep the urine sugar free and the blood sugar at nearly a normal level. During the last three and one-half years it has been my good fortune to treat with diet and insulin from one to six surgical diabetics daily, and I feel that the best results are obtained

by giving as much insulin as possible without causing unnecessary reactions, and not by giving just enough insulin to keep the urine sugar free, ignoring the blood sugar. Older diabetics frequently show high percentages of blood sugar without urinary sugar. I recently saw, in consultation with an ear specialist, a man 64 years of age with an acute otitis media and a beginning mastoiditis who had a fasting blood sugar of .260% and no sugar in his 24-hour urinary specimen. I usually have blood sugars done at a time in the day when they are liable to be at their lowest point and to give just enough insulin to keep above the reaction level.

The following régime is one that I have adopted, and, as far as I know, is original with me. The patient is given his usual amount of carbohydrate in some readily assimilable form, as orange juice, ginger ale, moxie, etc., on the morning of the operation. This is given in divided doses, the last dose coming at least one hour before the expected time of operation. The usual dose of insulin has preceded the first dose of carbohydrate by at least one-half hour. If the operation consumes considerable time, the patient may be given his usual amount of carbohydrate before he leaves the operating room. This feeding may be given rectally, subpectorally or intravenously. If the operation is of short duration, the insulin and carbohydrate may be postponed until noon. At about the time of the evening meal, the usual amount of carbohydrate may be given as above described and the insulin subcutane-

ously, and during the night the patient can usually take, by mouth, teaspoon doses of oatmeal gruel or fruit juices. Enough insulin may be given at mid-night to balance this. Frequent examinations of the urine should be made and special stress should be laid upon the presence of diacetic acid and acetone. The presence of a small amount of sugar at this time is not so important, as it can be cleared up in a day or two if we already know the patient's insulin requirement, with a given amount of carbohydrate. Here is where it is of great importance to know how to compute diets. During the next day or two, liquid diet can usually be retained, and, unless the patient shows diacetic acid and acetone, the carbohydrate can be kept at the same point as before the operation. We can now start to gradually build up the diet to a maintenance one. The pre-operative insulin requirement and the post-operative urine and blood sugar must be our guide as to insulin dosage. Fluids may be given as indicated, pre-operatively and post-operatively, in the form of salt solution with or without glucose (providing its carbohydrate content is reckoned), rectally, subcutaneously or intravenously. Blood chemistries should be done at reasonable intervals. Blood sugars above 200 mg. and co2's below 40 spell danger and frequently mean approaching coma. Nitrous oxide and oxygen, spinal anesthesia and local anesthetics are the anesthetics of choice. I believe that surgeons associated with me will agree that patients, treated as described, fre-



quently have less post-operative vomiting than non-diabetics. No diabetic patient should be allowed to leave the hospital until his incision is healed. A certain percentage of them will break diet or omit their insulin as soon as they get home, and glycosuria with hyperglycemia tends to prevent healing and favors post-operative infection.

The "acute abdomen" presents an altogether different problem. The exciting factor is frequently a bacterial infection and infection predisposes to acidosis and coma. Many of these cases are in extreme acidosis when first seen. Diabetic coma, with abdominal pain, may or may not be associated with the so-called "acute abdomen." Leucocytosis is not reliable as a diagnostic sign, as we frequently get a moderate increase of white blood cells in diabetic coma without surgical complications. No life should be sacrificed to an acute appendix just because the patient has diabetes. If in doubt, he should be properly prepared and operated upon, and the severity of the acidosis should guide the surgeon and internist as to the time of operation. If the patient is on the verge of coma, it is better to treat him from one to three or four hours before advising operative interference. If the urine shows heavy sugar with plus four diacetic acid and acetone, with a heavy blood plasma acetone, if the blood sugar is well over 200 mg. and the  $\text{CO}_2$  combining power of the blood is below 40, it is best to give from 40 to 60 units of insulin with an equal number of grams of carbohydrate and salt solution in the usual

way. At the end of one or two hours this may be repeated, and within a short time enough improvement will usually have taken place to insure reasonable safety for operating as far as acidosis is concerned. Frequent blood and urine analysis will determine the amount of carbohydrate needed during and following the operation.

In ruptured peptic ulcer, ruptured tubal pregnancy, strangulated hernia, etc., the severe diabetic may be given a good dose of insulin and carbohydrate, plenty of fluids and the operation started within a short time unless dangerous acidosis is present. The sugar should be cleared up as soon as possible after the operation.

2. Tonsil, prostate and cataract operative cases may be handled along the same line as cases of abdominal surgery not complicated with acidosis.

3. Boils and carbuncles are a frequent cause of death in the diabetic. An innocent boil or carbuncle may cause death within a few days. In the uncontrolled diabetic, the infection spreads rapidly, due to the lowered resistance, and the patient may be quickly worn out by the infection. If the diabetic treatment is started late, we may control the diabetes, yet the patient may be overwhelmed by the toxemia. A mild diabetic may become a severe one within a short time in the presence of infection. These patients should be put to bed, fluids should be forced, a high carbohydrate diet prescribed, and enough insulin given to control the diabetes, leaving the choice of surgical treatment to the surgeon.

4. Diabetes and hyperthyroidism may occur in the same patient. The hyperthyroid patient may have hyperglycemia and glycosuria without being in the class with the true diabetics. Joslin and Lahey,<sup>7</sup> in a recent study of the incidents of diabetes in thyroid disease, have given us a standard for diagnosis. They consider all thyroid patients diabetics if the fasting blood sugar is above .150% in addition to the glycosuria.

The cause of the decreased carbohydrate tolerance in the hyperthyroid patient is apparently largely due to over stimulation of the liver by the increased thyroid activity, resulting in a more rapid conversion of glycogen into available glucose. It is, therefore, easy to conceive how the removal of a toxic goitre, in this class of patients, will cause a distinct increase in carbohydrate tolerance. An apparently severe diabetic may be converted into a comparatively mild one in this way, or a patient who may look like diabetic at first may prove to have a normal carbohydrate metabolism after the removal of a toxic goitre.

5. Infection and gangrene of the lower extremities, especially the feet, are very common in the older diabetic, as the result of arteriosclerosis and lowered resistance due to the excess sugar. The exciting factor is usually a bruise frequently caused by ill fitting footwear. Too much stress cannot be laid upon the proper care of the feet, as cleanliness, care in cutting nails and corns, properly fitting shoes and Buerger's exercises, but I would like to go

back a little farther in the treatment and say, "Preach the gospel of well-balanced diets, sugar free urines and normal blood sugars, and we will have less occluded blood vessels and fewer gangrenous feet to treat."

The appearance of the infected or gangrenous foot is only too well known to all of us and its description will be omitted. The so-called "surgical diabetic foot" is described as occurring in two forms, the infected form and the arteriosclerotic form, but we usually get a combination of the two in the same patient. We must depend upon the surgeon as to the technique and proper time of operation. The pre-operative and post-operative diabetic medical treatment differs little from that in abdominal surgery, as described, except less time is usually needed in preparing the patient and less difficulty is usually experienced in controlling him afterwards.

A question arises, how long shall we wait before advising operation? This is a vital question to be decided between the medical man and the surgeon. Too much delay may cost the patient his life, but if we treat the patient too long before the operation we may not have any patient to treat later. Absorption and suffering will make him a very poor operative risk. I would feel justified in advising operation in the following instances: (1) In the arteriosclerotic form with no pulsation in the foot, with a beginning slough on one or more toes, and with an area of inflammation extending up into the foot. (2) In the arteriosclerotic form,

with no pulsation in the foot and with persistent pain, although the gangrene does not appear extensive. These are the cases that are very deceiving and practically always come to operation, many times too late. (3) In the infected type with deep tendon involvement, when the temperature remains constant or tends to elevate, when the discharge fails to decrease, and last but not least, when a marked increase of insulin is necessary to control the diabetes. This latter means an extension of infection, although there may not be much change in the outside appearance of the limb.

#### REMARKS.

Although insulin has made it possible for surgeons to operate upon diabetics with comparative safety, it is a poor tool in the hands of one who is careless. Intelligent dietetic measures are, have been, and always will be the foundation of diabetic treatment, whether it be medical or surgical.

Well-balanced diets, the removal of focal infections, sugar-free urines and normal blood sugars tend to prevent arteriosclerosis, that great forerunner

of gangrene. This should be a matter of great interest to physicians in all branches of medicine, as arteriosclerosis causes destructive changes in the entire body mass.

There should be the closest coöperation between medical men and surgeons in the treatment of surgical diabetes. "Passing the buck" from one to another is not for the best interest of the patient and will only lead to disastrous results.

#### BIBLIOGRAPHY

1. Riesman, David: "Forchheimer's Therapeutics of Internal Diseases," Vol. II, 1917.
2. Allen, F. M.: "The Dietetic Management of Diabetes." *American Journal Medical Science*, 167: 554, 1924.
3. Joslin, E. P.: "The Treatment of Diabetes," 1928.
4. Joslin, E. P.: "The Treatment of Diabetes," 1928.
5. Allen, F. M.: "Experimental Studies in Diabetes." *The Journal of Metabolic Research*, 2, 1922.
6. Hepburn, J., and Graham, D.: "An Electrocardiographic Study of 123 Cases of Diabetes Mellitus." *American Journal of Medical Sciences*, 176: 681, 1928.
7. Joslin, E. P., and Lahey, F. H.: "Diabetes and Hyperthyroidism." *American Journal of Medical Sciences*, 176, 1928.

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## UNIQUE FOREIGN BODY IN URETHRA

By C. HAROLD JAMESON, M. D., F. A. C. S.

Foreign bodies in urethra and bladder present interest from the point of view of immediate symptomatology, the problem of removal and the consideration of sequelæ. From the point of view of medical curiosities, the nature

of the foreign body, however introduced, has often proved of amazing character. A rehearsal of the varied character of such foreign bodies is uncalled for. However, the writer does not recall reading of such a foreign body as has



recently been encountered and will briefly report the following case.

H. W., age 52, woodsman by occupation, was admitted by ambulance to the Knox County General Hospital on the evening of June 8, 1929. He was suffering acute pain in the lower abdomen and urethra, having voided but a few drops in thirty-six hours. History was obtained of gonorrheal urethritis fifteen years previously, with gradually increasing urinary difficulty for three years. More recently, from inability to urinate readily, he was in the habit, while at work in the woods, of picking up any convenient twig or straw for introduction into the urethra to induce urination. In the early evening of the day before admission, while still in the woods, he found himself in great pain, and for the third or fourth time that day seized something from the ground. Some difficulty was experienced in accomplishing the insertion of this object, which apparently satisfied his ideas of a proper bougie. With some dexterity he finally accomplished his purpose, yet made a bad matter worse by breaking off the major portion of the "twig" or "root" within the urethra, whereupon greater pain and some urethral bleeding ensued.

With such a history in mind the patient was examined. The pertinent findings were as follows. The penis was edematous and extremely tender to touch, the size of the wrist, with deformity and paraphimosis. There was

some bloody discharge from the urethra. The urinary bladder was symmetrically distended to the level of the navel and tender to touch.

Immediate preparation was made for operation under gas and oxygen anesthesia. Circumcision was performed for relief of the paraphimosis. The urethral sound encountered a foreign body two inches from the external meatus. Some difficulty was encountered in obtaining a firm grip, but finally, after removing several fragments of scale-like material, the Kelly clamp reappeared holding by its broken-off tail the head and two-thirds of the body of a bluish-green snake six inches in length. Judging from the somewhat rigid character of the body, the reptile was undoubtedly dead when introduced twenty-four hours previously.

Further instrumentation encountered a filiform stricture of the membranous urethra, but after manipulation a No. 14 F. filiform catheter was introduced. The case then presented the usual features of urethral stricture, with, however, considerably more urethritis and periurethritis ensuing.

Subsequent questioning of the patient dispelled any impression of sexual perversion. The finding of the filiform stricture provided adequate etiology for symptoms prompting the ill-advised self-treatment. In his physical distress the shape and size of the dead snake satisfied this woodsman's by no means exacting requirements for a bougie!

## NECROLOGY

**George Earle Parsons, Castine  
and Milbridge,  
1873-1929**

Dr. Parsons, an active member of our Association, and well known all over Eastern Maine, was born in Franklin, February 20, 1873, the son of James and Elizabeth Butler Parsons, and was taken when a child to Ellsworth, where he was educated in the public schools and a near-by academy, studied medicine a year in the New York University Medical School, and obtained his degree at the Bowdoin Medical School in 1893. He practiced variously at Penobscot, Blue Hill and Castine until 1920, when he removed to Milbridge, where he obtained an appointment on extension work of the State Board of Health. He labored energetically in that business, with headquarters at Rockland, and was highly complimented for his exertions for public health. Taking too much responsibility upon his shoulders, he suffered a paralytic stroke, and ultimately died of apoplexy at Milbridge, May 18, 1929. He was held in high esteem wherever he practiced, acting, for instance, during his eleven years at Castine, on the School Board, the local Board of Health, and the Board of Selectmen, and was popular as a Free Mason and member of the Sons of the Revolution.

He is survived by his wife, who was Miss Annie Smith, of Indian River, daughter of Gilman Porter and Bessie Nash Coffin Smith, and by two sons and a daughter.

He was an active member of the Knox and Somerset County Societies and of the Maine Medical Association, attended meetings regularly, discussed papers intelligently, and as a practitioner of medicine he was a most conscientious man, his manners being attractive and pleasing to all with whom he came in contact.

**George Barstow Tibbetts, Orrington,  
1854-1929**

This fifty years practitioner of medicine, the son of Cyrus and Susan Moore Tibbetts, was born in Searsport, March 17, 1854, educated in public schools and a local academy, and after a medical course at Dartmouth he finished at the Bowdoin Medical School in 1878. He wrote a graduating thesis on "Omotocia," a curious name for premature delivery and unknown to the cross-word puzzles of to-day, even if it "is in the dictionary."

Soon after obtaining his degree, he settled for a while in his native town, married there Miss Clara F. Nickels, and is survived by her and two daughters.

He practiced most of his life in Orrington and crossed his half century life of medicine early in the past year, a record not often obtained by many physicians in length and success of service. Although not much given to politics, he served faithfully in the State House of Representatives for the session of 1909 and was appreciated by his constituents. In this capacity he

served the three towns of Orrington, Hampden and Veazie. He was a Republican by predilection, a Methodist in his religious belief, a good admirer of farming, and a typical self-reliant country practitioner. His health had failed considerably during the past two years, and his death was not a surprise

to his family. He was a man of sound mind, always ready, rain, snow or sunshine, to fall into the line of practice, and as the title of his graduating thesis suggests, he continued to exhibit a lifelong interest in obstetrics, and was skillful in routine cases as well as in its emergencies.

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## COUNTY NEWS AND NOTES

### Androscoggin County Medical Society

A regular meeting of the Androscoggin County Medical Society was held September 17th at the DeWitt Hotel, Lewiston, with Dr. A. W. Plummer presiding. The society was pleased to greet the visitors from various parts of the state, which was, in part, occasioned by the meetings of Councilors and Secretaries, held the earlier part of the day.

Dr. Stewart spoke briefly on the Hebron Sanitarium Clinic, scheduled for the 7th of October, and the Liability Insurance Plan, now under consideration.

Dr. C. B. Sylvester emphasized the value of mental relaxation and play, and offered a novel prescription to correct errors in that direction.

It was voted to

1. Appoint a committee to investigate the burial lot of Dr. Millett.
2. Permit the membership application of Dr. M. Goldman to take its usual course.
3. Appoint a committee on by-laws.

Drs. H. Garcelon, W. W. Bolster and R. Goodwin were chosen.

Dr. J. Emmons Briggs, of Boston, was the speaker of the evening. His address on "Advances in Stomach Surgery" was delivered with unusual clarity and skill. His newly-devised technique in gastroenterostomies by the aid of the bovie electrosurgical unit gives promise of replacing the hitherto accepted methods. The general application of the electrosurgical method was also briefly dwelt upon.

Those present were: Drs. W. J. Renwick, H. R. Miller, E. Leathers, Geo. Schneider, R. Goodwin, R. Turley, J. Busch, G. Defoe, L. O. Roy, Chas. Cunningham, J. E. Dupras, Ludovic Dumont, R. Belliveau, W. H. Schaffers, J. Gottlieb, M. Dionne, Wm. Bolster, Wallace Webber, E. B. Buker, John Sturgis, H. R. Miller, W. J. Renwick, B. Russell, E. P. Goodrich, W. L. Haskell, H. L. Gauvreau, H. W. Garcelon; D. M. Stewart, South Paris; C. B. Sylvester, W. D. Anderson, F. Y. Gilbert, C. Peaslee, L. A. Brown, Portland;



G. H. Rand, C. R. Smith, Livermore Falls; C. F. Kendall, R. H. Stubbs, Augusta; H. E. Williams, Mt. Vernon; E. S. Abbott, Bridgton; John M. Bischoffberger, Naples; E. C. Higgins, G. W. Twaddle, A. W. Plummer, Lisbon Falls; J. Emmons Briggs, of Boston.

Respectfully submitted,

J. GOTTLIEB, *Secretary*.

### Somerset County Medical Society

The Somerset County Medical Society held its annual meeting August 1st, at Embden Lake, President Tozier presiding.

The President's address was on "The Review of Pneumonia."

The following officers were elected:

President, Dr. L. F. Norris, of Madison.

Vice President, Dr. M. E. Lord, of Skowhegan.

Secretary and Treasurer, Dr. G. E. Young, of Skowhegan.

Delegate to State Meeting, Dr. C. A. Moulton, of Hartland; alternate, Dr. W. S. Stinchfield, of Skowhegan.

G. E. YOUNG, M. D.,

*Secretary*.

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## BOOK REVIEWS

*Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1928.* Cloth. Price, postpaid, \$1.00. Pp. 75. Chicago: American Medical Association, 1928.

This book is a great deal more than a mere record of the negative actions of the Council on Pharmacy and Chemistry. It gives in full the reasons for the Council's rejection of various preparations, but it also records results of the Council's investigations of new medicinal agents not yet out of the experimental stage, and frequently contains reports on general questions concerned with the advance of rational drug therapy. All three categories of reports are represented in the present volume.

Among the reports on products that

have been denied admission to New and Non-Official Remedies are those on Sanarthrit and Telatuten, two preparations of animal tissue, of indefinite composition, proposed for use in arthritis and arteriosclerosis respectively; on Clauden, a combination of lipoids and undefined proteins, proposed for use as a hemostatic; on Hart's Alimentary Elixir of Beef, a liquid medicinal food, "fortified" with glycerophosphates; on Alucol, claimed to be colloidal aluminum hydroxide and marketed under this nondescriptive name; on Oxo-Ate and Oxo-Ate B, claimed to be the ammonium and calcium salts, respectively, of orthoiodoxybenzoic acid and marketed under these proprietary, nondescriptive names; on Terpezone, stated to be pinene ozonide and marketed with exaggerated and unwarranted claims;

on Vitalipon, an unscientific and indefinite mixture of lipoids claimed to be extracted from "vegetable and animal embryonic organs"; on Kalak Water, a solution containing sodium bicarbonate with many other ingredients of questionable utility, marketed under a non-descriptive name with unwarranted therapeutic claims; on Eu-Med, Aerosan Tablets, and Thyangol Pastilles, three shot-gun mixtures from Germany.

Among the preliminary reports are those on Metrazol, which has now been admitted to New and Non-official Remedies; on Phenylaminethanol sulphate, a newly synthesized ephedrine substitute; on Ovarialhormon Folliculin Menformon, the ovarian preparation originated by Dr. Laqueur, of Amsterdam; and on Heparmon, a liver preparation.

The special report dealing with dextrose solutions containing cresol and intended for intravenous administration is a noteworthy example of the third category of Council reports we have mentioned.

*New and Non-Official Remedies, 1929*, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1929. Cloth. Price, postpaid, \$1.50. Pp. 488; xlviii. Chicago: American Medical Association.

This book offers a solution to the problem of the busy physician who is daily importuned by "detail" men to try the thousand and one new prepara-

tions brought out by enterprising manufacturers of pharmaceuticals. If the preparation in question is not described in New and Non-Official Remedies, it is quite safe to refuse to try it, no matter how alluring the salesman's talk. The book contains descriptions of those new preparations which, after painstaking examination, the Council on Pharmacy and Chemistry has found worthy of recognition and of trial by the medical profession. It is revised each year to bring it up to date with the best medical thought and to include the new preparations that have been recognized during the year, as well as to delete those which have been found not to live up to their promise of therapeutic value.

In this edition there appears for the first time an article on liver preparations and their therapeutic use. The articles on ergot, metallic peroxides, pituitary gland, and radium and radium salts have been considerably revised. Among the new preparations which have been included in this edition are: Diphtheria Toxoid, which is the toxin of diphtheria so modified by treatment with formaldehyde as greatly to reduce its toxicity yet preserving its antitoxic power; Metrazol, another proposed substitute for camphor; Liver Extract Number 343 and Concentrated Liver Extract-Armour, for the treatment of pernicious anemia. Other newly accepted articles are: Bismuth Sodium Tartrate-Searle, another water soluble bismuth tartrate preparation; Scarlet Fever Toxin-P., D. & Co., another scarlet fever toxin manufactured under

iease of the Scarlet Fever Commission; Parathyroid Hormone-Squibb, standardized by the method of J. B. Collip, and Paroidin, made and standardized by the method of A. M. Hanson, both being solutions of the active principle or principles of parathyroid gland for appropriate clinical use. An important deletion is the omission of all generators charged with radium.

A new departure in this edition is a list of "exempted" articles. This comprises some hundred and thirty medicinal and non-medicinal products examined by the Council and found to be of such composition and to be so marketed as not to require acceptance or rejection by the Council under its rules.

A section of the book (brought up to date each year) gives references to

proprietary articles not included in New and Non-Official Remedies. This list, in conjunction with the book proper, constitutes a cumulative index of proprietary medicines, which physicians may consult when a proprietary product is brought to their attention. Physicians cannot dispense with the use of the newer remedies that are brought out each year, yet they can neither judge them on the basis of the manufacturers' claims nor have they the time or means to determine their merits for themselves. For this reason, every physician should possess a copy of this volume, which annually puts at his disposal an authoritative, up-to-date, unbiased estimate of these preparations.

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## NOTES

### **Radiological Society of North America**

The next meeting of the Radiological Society of North America will be held at Toronto, December 2nd to 6th, inclusive, with headquarters at the Royal York Hotel. The facilities and accommodations at this hotel are the best in the history of the Society, and we expect to have a banner meeting in every way. The scientific program, clinics, scientific and commercial exhibits will be of the highest character, and exceedingly interesting and instructive. The program will be interesting, not only to the radiologists, but to the physicians practicing other medical spe-

cialties and general practice as well. A cordial invitation is extended to all physicians as well as radiologists to attend the Toronto meeting. Secure reservations at once through Dr. W. C. Kruger or Dr. G. R. Reid, 20 College Street, Toronto, Canada. Excellent arrangements have been made to take care of the visiting ladies.

### **Philadelphia Academy of Surgery**

#### **THE SAMUEL D. GROSS PRIZE OF FIFTEEN HUNDRED DOLLARS**

The conditions annexed by the testator are that the prize "shall be awarded every five years to the writer of the best original essay, not exceeding one



hundred and fifty printed pages, octavo, in length, illustrative of some subject in surgical pathology or surgical practice founded upon original investigations, the candidates for the prize to be American citizens."

It is expressly stipulated that the competitor who receives the prize shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery, and that on the title page it shall be stated that to the essay was awarded the Samuel D. Gross Prize of the Philadelphia Academy of Surgery.

The essays, which must be written by a single author in the English language, should be sent to the "Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 19 S. 22d St., Philadelphia," on or before January 1, 1930.

Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

WILLIAM J. TAYLOR, M. D.,

JOHN H. JOPSON, M. D.,

EDWARD B. HODGE, M. D.,

*Trustees.*

## **United States Civil Service Commission, Washington, D. C.**

### **PHYSICIANS URGED TO BE CAREFUL WHEN EXECUTING MEDICAL CERTIFICATES ON CIVIL SERVICE APPLICATIONS.**

(Statement of the United States Civil Service Commission.)

The government, and applicants for examinations themselves, are frequently embarrassed by the improper execution of medical certificates attached to applications for federal civil service examinations.

New appointees are required to undergo a physical examination by a government medical officer before entering upon duty. For many examinations a preliminary medical certificate is required in connection with the application for examination, for consideration in determining eligibility for examination, and in some cases for rating on the element of physical ability. Frequently government medical officers find in the examination at the time of appointment physical disqualifications which must have existed when the preliminary medical certificate was executed by the private practitioner, although no mention of such physical defects is found in the private practitioner's medical certificate. Such a situation presents a problem to the government, especially if the appointee has traveled a considerable distance to accept the appointment. In many cases the appointment must be canceled, with resulting loss of time and money to the disappointed applicant.

The Civil Service Commission feels

that these discrepancies between medical certificates executed by private practitioners and those made later by government medical officers are due in some cases to carelessness upon the part of the private practitioners, and in others to a liberal attitude deliberately assumed in the mistaken belief that by ignoring or minimizing physical defects the applicant is assisted in obtaining employment.

The Civil Service Commission's forms for medical certificates attached to application blanks are comprehensive and clear. If all private practitioners will exercise due care when filling out the certificates they will not only render a service to the government, but will also give the maximum service to the applicant who pays the fee for the preliminary physical examination.

## New and Non-Official Remedies

Abbott Laboratories:

Metaphen 2500.

Mead Johnson & Co.:

Sobee.

E. R. Squibb & Sons:

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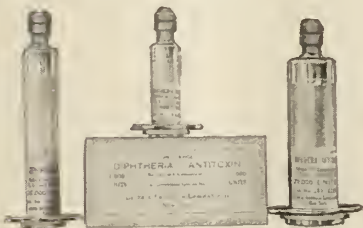
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### \*PERFORATIVE APPENDICITIS

#### Its Incidence and Controllable Factors in Its Prevention

By HAROLD M. GOODWIN, M. D., F. A. C. S., in Bangor, Me.

The object of this paper is to bring to the attention of the profession the high incidence of perforative appendicitis, its high mortality, the increased suffering attendant upon it, the economic loss, from the standpoint of days in hospital, and finally what seem to be controllable factors in the prevention of it.

A study was made of two hundred cases of acute appendicitis operated upon at the Eastern Maine General Hospital in 1928. The following analysis is of interest:

#### ANALYSIS OF SYMPTOMS AND SIGNS

Pain,	100%
Vomiting,	55.9%
Nausea,	32.7%
Tenderness,	70%
Muscle spasm,	39%
Rigidity,	11.5%

#### MISCELLANEOUS DATA

Average temperature,	99.9
Average white blood count,	13,243
Cases having previous attacks,	52%

#### AGE INCIDENCE

1-10 years,	27
10-20 years,	115
20-30 years,	52
30-40 years,	22
40-50 years,	18
50-60 years,	8

#### SEX INCIDENCE

Male,	104
Female,	138

In reading over the medical history of these cases, certain points of interest were noted. The frequency of vomiting was in direct proportion to the virulence of the infection, always being present in the severer attacks.

The white blood count, the value of

\*Read before the annual meeting of the Maine Medical Association, Poland Spring, Me.

which is sometimes depreciated, was consistently increased in the acute attacks, and likewise normal in the chronic cases unaccompanied by acute symptoms.

The temperature and pulse in the non-perforative type were not always indicative of the severity of the infection of the appendix, being slightly above normal at times in the presence of marked swelling and even gangrene of the appendix.

Concretions were recorded, either by the operator or the pathologist, in 14.8% of the cases, making it appear that improper emptying of the appendix predisposes to inflammation.

The high percentage of cases having recurrent attacks (52%) shows that the disease is quite prone to recur. It would be interesting to know the percentage of cases which permanently recover, once having had an acute attack, but such statistics are unavailable,

as the patients do not enter the hospital, and it is only from a large general practice that such figures can be obtained.

The average number of days in the hospital in acute non-perforative and perforative cases is of interest.

Acute non-perforative, 15.4 days  
Perforative, 27.7 days

Tuttle, in a study of 3,568 cases at Ancon Hospital, records the following:

Acute non-perforative, 14.5 days  
Perforative, 37.1 days

It is evident from the above figures that the time in the hospital for perforated cases is doubled, to say nothing of the increased suffering, the possibilities of fecal fistula, painful post-operative adhesions and hernia.

A comparative study was made of the percentage of drain cases, and also the mortality in the non-perforative and perforative types, in the three Maine General Hospitals, as follows:

	Number Cases 1928.	Per Cent. Drain Cases.	Mortality Acute Non- Perforative.	Mortality Perforative Cases.
Maine General Hospital, Portland (Apr. to Dec.),	93	35%	1.4%	18%
Central Maine General Hospital, Lewiston,	116	18.1%	1.7%	25%
Eastern Maine General Hospital, Bangor,	200	34%	None	19.2%

It is obvious from the above figures that nearly one in every three patients who enter the Maine General Hospitals with appendicitis are suffering from the perforative type. It is further obvious that the patient suffering from perforative appendicitis has slightly more than twenty times the chance to die than one whose appendix has not perforated.

What can be done to remedy the con-

dition? There are two controllable factors in the prevention of perforation: First, early operation; second, abstaining from the use of physic.

In regard to early operation, Clark and Bower, in a study of 750 cases at the Samaritan Hospital in Philadelphia, recognize a close relationship between the mortality and time from the onset of symptoms to operation.

	Average Time from Onset of Symptoms to Operation.	Mortality in all Cases.
1922,	85.2 hours	9.6%
1925,	49.5 hours	1.53%

There can be no doubt that the longer operation is delayed the greater the danger of perforation. However, there is another factor which ought not to be lost sight of, and that is the virulence of the infection. There are doubtless many of us who can recall cases which have perforated in less than twenty-four hours.

Quite a few perforative cases come to us with the story that a physician has been in attendance for several days. If the truth were known, it would be found, in most cases, that the physician had advised early hospitalization, which advice the patient had refused until the severity of his symptoms had finally driven him to agree to operation.

There is still in existence, among a certain percentage of persons, an unnatural horror of a hospital, and this is probably responsible for the delay in operation, in a high percentage of cases, and the disastrous results which accompany it. It should be represented to the patient that practically every person gets well if operated on in time, that his chances of dying are twenty times greater by delaying until perforation occurs than with early operation. If he then refuses, the physician should request to be relieved of any responsibility in his case. This procedure oftentimes produces results.

The second controllable factor in preventing perforation is abstaining from use of physic in the presence of abdominal pain resembling that of appendicitis.

Physic is too generally admitted to be a potent cause of perforative appendicitis to require discussion.

In considering the diseases which might be included in the differential diagnosis of appendicitis, there are none which demand physic, until at least a fairly definite diagnosis is made.

It might be contended that physic is indicated in food poisoning, with colicky pain (green apple bellyache, for example), which might be confused with appendicitis, but food poisoning is always accompanied by diarrhoea, which is an extremely rare symptom in appendicitis.

Physic is also sometimes given in acute indigestion, either gastric or intestinal, but without reason, for it is usually vomited, and a stomach wash and enema are to be preferred.

In all the other diseases included in the differential diagnosis of appendicitis, viz., salpingitis, ureteral calculus, gallstones, ovarian cyst with twisted pedicle, psoas abscess, typhoid ulcer, pyelitis, perinephretic abscess, ectopic pregnancy, and others, physic is not indicated.

In spite of this, it is a deplorable fact that many patients receive physic before coming to the hospital, probably in most instances given by the laity, without the advice of a physician.

It is noteworthy that in the only cases where physic was recorded in the medical history of the series studied (12 in number), perforative appendicitis existed in each case.

There are two suggestions which might prove of value in bettering con-



ditions in Maine. In the first place, educate the public to the dangers of appendicitis. Let every child, at the proper school age, be taught the following in connection with his course in hygiene: "In the presence of abdominal pain, give nothing by mouth, never give laxatives, call a physician, apply ice bag to abdomen and give an enema." He doubtless may not think much about the matter at the time, but later in life, when he is suffering from the symptoms of appendicitis, it will occur to him.

The Maine Public Health Association has been a leader in its work against the ravages of tuberculosis, cancer, and other diseases. Why not from this standpoint attack appendicitis, which has a death toll of about 138 yearly in

Maine, causes great suffering and disability, not to mention the economic loss from increased days in hospital, and mortality.

The second suggestion is that the profession adopt a definite policy as regards acute appendicitis. In the first place, never give physic in cases simulating it. Secondly, adopt the axiom of Maurice Richardson, a pioneer in its discovery, namely, "Given the diagnosis of acute appendicitis—operate; and when in doubt—operate."

#### REFERENCES

"Controllable Factors Affecting the Mortality in Appendicitis," J. O. Bower and J. H. Clark. *Journal American Medical Association*, 89, 844, 46, September 10, 1927.

Review 3,285 Cases Appendicitis, H. K. Tuttle. *Boston Medical and Surgical Journal*, 196, 897, 902, June 2, 1927.

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### \*SOME CLINICAL CONSIDERATIONS OF ACUTE APPENDICITIS

By FRANK H. JACKSON, M. D., F. A. C. S., Houlton, Me.

I think that it will be admitted without much argument that the uncomfortable death rate in acute appendicitis occurs in that group not operated upon until *after* perforation has taken place, with its resulting more or less diffused peritonitis. It seems to make little difference whether the groups studied are from surgeons operating in our metropolitan centers, or those in smaller communities, the death rate in the patients operated upon after perforation has taken place is a far, far different story than in those who obtain

appropriate and early treatment. This most unsatisfactory condition will obtain *just as long* as the profession as a whole fails to become familiar with and grasp the importance of the fundamental pathological facts present in this very common, and if improperly diagnosed, extremely serious abdominal lesion. Working on any other basis will result in more or less confusion in the solving of this pathological riddle; delayed and faulty diagnoses will result, with the effect that patients will not be admitted to the hospitals until after

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perforation has taken place with naturally a grave prognosis. The evaluation and interpretation of symptoms must be based upon a correct understanding of the pathological changes that are taking place or have occurred. As a matter of anatomical fact, beyond dispute, the appendix is a blind end diverticulum of the large gut, and obstruction of its lumen from any cause, with a resulting retention of its extremely septic contents, demands the same meticulous care for prompt diagnosis and the same promptitude for operation as would obtain in any other portion of the intestinal tract.

Wilkie describes two separate and essentially different acute diseases of the appendix. (1) Acute inflammation of the wall without obstruction of the lumen. (2) Acute obstruction of the lumen. Each has its own pathology and clinical picture, and more or less confusion is bound to occur unless one appreciates the differences and their clinical significance.

Acute inflammatory disease of the appendicular wall is of common occurrence. The milder types of the disease often come and go without a physician being called to attend the patient. The disturbance may be transitory, is usually attributed to some dietary indiscretion, and often the attacks are forgotten by the patient or assumed of no significance. The clinical symptoms, even in cases under the care of a physician, may be and often are misinterpreted, too many times the say-so of the patient that it is a mere bellyache is taken for granted without a sufficient examina-

tion to disclose the error, and often when the diagnosis is established, that is, that the patient has a mild attack of appendicitis, some physicians do not seem to appreciate the pathological danger that exists; their hearts may govern their heads and operation is not advised. The important thing to bear in mind, once the diagnosis is established, is that what now *may* be a mild degree of inflammation can within a few hours be most progressive in character, and that early operation is a wise and conservative course. Even if the attack does subside, that does not by any means guarantee that a complete restoration to a normal condition will follow, and a very important pathological legacy may result—*important*, because it may leave an angulated, stenosed or bound-down appendix, with or without fecal concretions, that this crippled appendix may be a focus of low grade infection that may make the life of the patients miserable by the attacks of recurrent pain, reflex intestinal and stomach disturbances are not uncommon, but what is most significant, such an appendix is especially vulnerable, and is most liable to an attack of the obstructive type of inflammation. It may seem a bit radical to advise or to perform operations in these mild cases, also it is in this very group that we so often have our advice rejected by the patient, or those responsible, and different counsel is sought. Many times the second physician is not at all reluctant to deny the advisability of surgery. He may be and often is more emphatic than complimentary in expressing his

opinion regarding his colleagues who do favor such a course, but a very valuable opportunity may be lost and a tragedy result. Surgical writers are most emphatic on and stress the point that to delay operation in cases occurring in young children, even when the symptoms at the time may point to a mild degree of inflammation, courts nothing but disaster, for the patient that you see now with clinical symptoms seemingly indicating a mild attack can within a very few hours be in a most dangerous condition. Kerley, in his book on children, makes this statement: "Appendicitis in children is so essentially a disease requiring surgical interference that little need be said of it here."

The subject of the differential diagnosis of the acute abdomen is so clinically important that a symposium might well be afforded it, and while short cuts and snap diagnoses are not commendable, a good working rule is to try and eliminate as quickly as is possible the fact that no medical disease is responsible for the symptoms. It constitutes no reflection on one's ability or judgment in asking for help from a colleague in many of these most urgent and fulminating affections.

The second type of appendicitis, namely the obstructive, is the one that gives us our high mortality, and I sometimes wonder if the diagnostic acumen of the internist has kept pace with the technic of his surgical colleagues. I wish that it were possible for those members of the profession who do not do major surgery to follow

to the operating room and through the after-treatment a group of cases operated upon before and after rupture. They would appreciate the important fact that the establishing of a correct diagnosis, followed by early operation, materially eliminates the rapidly increasing penalties of delayed or faulty ones. It is a common clinical observation that within a very few hours after the onset of an attack of the obstructive type of the disease, without alarming symptoms from either pulse or temperature, the appendix may be well on the road to gangrene or so distended with virulent pus that rupture and its contamination of the general peritoneal cavity is only a matter of a very short time. It will result in much good if we will once and for all drop this fetish of demanding that the so-called symptom complex of the textbooks be complete in all detail, or that the sequence of the symptoms must follow this or that order, before one is willing to make a diagnosis of acute appendicitis. It has been estimated that the appendix is responsible for 75% of the cases coming under the title of the acute abdomen. If the critics of exploratory operations want to howl their heads off, allow them that privilege, for far, far too many operations are done as a desperate attempt to save the life of some patient who is brought to the hospital with a diffuse septic peritonitis who has been under medical care and observation several days, and since so many of these patients are young children or young adults entering upon the prime of life, with their future be-



fore them, it becomes most important to operate early, not only to save the life of the patient, but to prevent the extremely rapidly mounting cost of prolonged hospital care. It seems to be a popular form of exercise to criticize surgeons for the high death rate in this group of cases, but I feel the blame belongs elsewhere. We are not responsible for the unfortunate results when patients do not follow sane and honest advice, but we are at fault if we fail to examine these patients as we should and advise a form of treatment that offers the maximum chance for cure. Of course it is extremely difficult, sometimes it is impossible, to differentiate between an acute appendix, especially one that does not occupy its usual anatomical position, and a ruptured gastric or duodenal ulcer, an acute pancreatitis, empyema of the gall bladder, a ruptured ectopic and an ovarian cyst with a twisted pedicle, just to mention a few of the things that can happen. However, even if you do find a gangrenous gall bladder or a perforated ulcer, explore the appendix if you possibly can do so. I have had three cases of perforated ulcer with an associated purulent appendicitis, a very severe case of empyema of the gall bladder with a gangrenous appendix, and even if the appendix has been reported to have been removed at a former operation, take a look to be sure. Sometimes it regenerates unless the blood supply has been completely severed, for I have seen more than one example of that strange happening.

A most suggestive symptom of the

obstructive type of the disease is the suddenness and intensity of the initial pain. The patient may awake from a more or less disturbed sleep, may be taken while at school or at work, but the story seems to be quite universal that the pain was of marked severity from the beginning, usually at first epigastric in location, followed by the secondary or appendiceal pain which is at the anatomical location of *that given appendix*. This excruciating pain may suddenly cease after a few hours' duration. It is very liable to do so if a cathartic has been given, and is a most sinister happening, many, many times interpreted wrongly by both physician and patient. It usually means the rupture of a gangrenous or purulent appendix, is soon followed again by the pain from an infected peritoneum, and is merely that temporary relief that is afforded by the sudden giving away of the inflamed appendix.

As I find them, there seem to be three types that perforate early: (1) Those in which the attack is superimposed upon an attack of acute tonsillitis, or when an epidemic of so-called flu is in progress. (2) Those in which the ulceration is near to, or at the base of, the appendix, and in this form contamination is usually early and far spread, since there are no limiting adhesions. (3) Those in which the appendix contains fecal concretions. Another characteristic of these three types is the liability to septic thrombosis of the veins of the mesentery, from which emboli may become displaced, with most unhappy results.

It is a matter of great diagnostic importance to bear in mind that the appendix does not always occupy an anatomical position corresponding to the point described by the illustrious McBurney. This is not to be regarded lightly, for as an important clinical fact the average location of the appendix does not correspond to this historical point. It must be kept constantly in mind that the secondary pain—this usually follows within a few hours the onset of the initial pain—is present at the *anatomical* site of the appendix in that given patient, and failure to remember this fact or to disregard it will result in one being misled. The retrocecal appendix, therefore, gives pain and tenderness, not at the point usually looked for, but in the loin; the appendix located in the pelvis may cause marked pain either in the bladder or rectum with the protective spasm and rigidity of the rectus much lower than is usually sought for; the appendix lying to the left of the colon or covered by the lower ileum may go on to a very severe degree of inflammation, with even little or no rigidity, and one lying in close approximation to the ureter may give rise to hematuria and direct the attention of the physician to the right kidney. One, therefore, should remember the value and significance of the flexion and rotation tests of the thigh, that the rebound pain is just as valuable as the direct pressure pain, and that to elicit the difference between the two sides of the abdomen requires a gentle technic. In fact, the best way to appreciate the departure from the normal as to rigid-

ity and pain in the abdomen is to examine first that side that the patient indicates to be without trouble, as was taught by Brewer, of New York, to his students a great many years ago.

The blood count is a symptom that does not impress me as much as it does some. The fallacy of deciding for or against operation on the examination of the blood must be obvious on brief thought. Correlate it with symptoms of equal if not of more value from a clinical standpoint, and regard it for just what it is—a measure of the body resistance up to a certain point. The blood is a tissue, has its own defensive reactions, therefore a careful total leucocyte count and the percentage of polymorphonuclears may be and often is very helpful.

If we are in agreement that if we get the cases of the acute type early we usually get them well, I admit that I am a bit puzzled as to a seeming attempt to standardize the line of treatment in that group seen too late for an early operation. Just how one can satisfy himself as to the progress of a pathological process within a given abdomen by reliance upon blood counts, local signs, and pulse and temperature reactions is beyond me. It may be well to have an open mind as to the advice given by men of vast clinical experience, but somehow I go on the idea that when a patient has or is actually defecating into his peritoneal cavity that patient will do better, as a general rule, with an open wound. The time that has elapsed from the onset of the initial symptoms is also far from an exact

criterion as to whether one should or should not operate. I admit that there is a certain number of patients who do poorly following operation, in fact, it seems to hasten the fatal outcome, yet there seems to be another just as equally sick group who go on rapidly to recovery just as soon as the pent-up filth is let out and its source removed. Frankly, I admit my own inability to judge between these two types of cases; that is the one that some clinicians claim can be tided over by the Ochsner method of procedure, and those that the toxic and septic process is bound to progress to death unless stopped by something more radical. One must, I suppose, use his own clinical judgment. I recall seeing a case of a most deperate type a number of years ago one night with my friend Doctor Ebbett. Every clinical symptom pointed to a most advanced toxic diffuse peritonitis due to a ruptured appendix. I asked the perfectly natural question: "What is the use of operating upon this man?" Doctor Ebbett made this reply, and I feel that it applies to many, many desperate cases. "He will die if you don't operate, and he may live if you do." We went ahead, and the next morning the patient showed a very gratifying reaction and rapidly got well. Some time ago I went over a group of cases occurring in patients between three and eighteen—there were 105 in this group—that were selected to bring out certain points, *since they were all operations of an emergency type*. They were performed in one hospital, and of the total number there were thirty that

required abdominal drainage, that is, they had either a localized abscess or a more or less diffuse septic peritonitis. In the remainder, the operative incision was closed, but some of the incisional planes were drained for a few days with strands of twisted silkworm gut. In the series there were four deaths. One was due to a pneumococcic peritonitis; the appendix was not diseased—an error in diagnosis and therapy. Another death was due to the anesthetic, one of the tragedies of surgery; the appendix was gangrenous, the operation was completed in a short time, and just as the final stitches were being put in he suddenly stopped breathing. The anesthetic had been stopped, and he was dead within a few minutes. The other two deaths were from a continuation of the toxemia from the diffuse septic peritonitis. These cases were all of the emergency type, many of them operated upon in the night, and presented evident gross pathology sufficient to satisfy the most exacting that a fulminating appendicitis was present.

The majority of cases requiring drainage, that is, patients with pathologic soiling of the peritoneum—and that does not mean a cloudy peritoneal fluid with an intact appendix, for with an exception to be noted later these are not drained—are in the two extremes of life. Children under five years of age seem to bear infections of the appendix poorly; from that time on their defensive reactions seem to increase gradually, but after fifty we again have seemingly a lowering of the ability to handle the infections and rupture occurs



with frequency. During the past two or three years I have read that a certain percentage of the undesirable mortality in this disease is due to the fact that casual and inexperienced operators are attempting tasks beyond their ability, and that the records from the smaller hospitals will not compare as favorably as those from the larger ones. Without any question, the man who has performed five hundred operations for this or any other surgical disease will do his work much better and with more confidence than he did his first twelve, but he *must* do that first dozen. The death rate in Maine for 1927 was 1.74 per 10,000; in 1918 it was 1.47, which shows a slight but increased mortality, but it would be very interesting, and perhaps a matter for some degree of pride, if the total number of desperate and fulminating cases operated upon each year could be known and how many lives thereby had been saved to the state and the families of the patients.

My attitude on the subject of operation is that the disease is one of emergency type. One's social engagements, rest or favorite foursome cannot assume priority, for many times to delay means gambling with death. Some of these patients, on admittance, show a very marked evidence of dehydration and toxemia. Time should not be wasted in preliminary treatment, but usually one can, between the time of admittance and making the operating room ready, have run into the bowel 500 c. c. of a 5% solution of glucose, which seemingly is of value. Naturally, every one, after a certain lapse of time, devel-

ops a certain line of operative procedure with which he is familiar. My personal preference for an operative incision, unless an abscess dictates the point of entrance into the abdominal cavity, is one along the border of the right rectus. The muscle is not split, its external border is demonstrated and then sufficiently released up and down to give one a good working exposure. In patients with very fat abdominal walls, I have found help in undermining the subcutaneous fat anywhere from two to three inches from the proposed line of incision of the fascia, which seems to allow the wound to be made more shallow. A little trick told and shown to me by William Mayo is far from a fanciful one. Do not make the incision in the peritoneum as long as the one in the fascia and you will have less trouble in closure and less danger from hernia if intraperitoneal drainage is required. Protective pads, so called, are not employed if they can be dispensed with. If intestines crowd into the operative field they can be held back by a smooth metallic spatula with a gentle hand with far less damage. Naturally, on opening the peritoneum some free pus will run out, but no attempt is made to remove any by mopping or suction. The incision will allow sufficient pus to escape so that the intraabdominal tension will be relieved, with marked improvement in the restoration of the circulation through the lymph and blood vessels. In patients with a ruptured appendix a fairly safe working rule is that drainage should extend to the place from whence

it came, taking care that the drains do not cross the anterior surfaces of the cecum or small intestine. "When in doubt, drain," has been a dictum of many years—probably a safe procedure—but the peritoneum has remarkable ability to handle a certain amount of soiling. However, I feel that in those cases, even if the appendix has been removed intact, where the exudate has an odor suggestive of colon infection, one had better drain. No description of the ordinary cigarette or its usage is needed, but I would like to call attention to the Gibson-Mikulicz drain, as perfected by Dr. Gibson, of the New York hospital. This drain has been in use on his service for the past fifteen years and with great success. The drain as described by him is made of rubber dental dam, folded in the form of a cornucopia, with the apex cut off, and then holes are cut in the edges about one-half inch in size. This drain is similar in principle to the so-called quarantine pack, as highly recommended and used by Coffey, of Oregon, and I have them made up in various sizes, but instead of depending upon the edges to stay in place by mere infolding I have them fastened with rubber cement. The technic of using the drain is as follows: The site of the appendix is seen, the index finger of the operator is placed at the apex of the drain and carried to the lowest point that you wish to take care of, the surface edges of the drain then being spread out and the cavity tamponed with packing strips. It is much better to slightly overstuff the cavity, for

when the first strips are removed a very large cavity will remain, the walls of which are intestines, and from which the amount of drainage will be enormous. The primary packing can be left in from forty-eight to seventy-two hours—that depends upon the amount and type of discharge—but when it is removed it can be done without pain, the rubber drain still remains, and fresh tamponage employed with a less amount, which allows the walls of the abscess cavity to gradually close. Usually at the end of ten days the entire tampon can be removed, and cigarette drains can be trusted upon to take care of the drainage tract. One of the striking features noticed when this type of drainage is employed is the enormous amount of foul discharge that is poured out within a few hours, with a corresponding improvement in the condition of the patient. When the conditions seem to warrant so doing, that is, when there is a very large amount of pus or excessive exudate with foul odor, the operative incision is *not* sutured, but is closed partially by means of adhesive strips. It might seem at first thought that evisceration was a prominent danger. This has *not* occurred in any case, and while I am unable to say just how many times I have employed this type of drainage without closure by suture in part, it is sufficient to show me its marked advantages over any theoretical dangers. The closure by adhesive is done as follows. The strips are put on in a shingling manner, usually strips of about an inch and a half wide being used, and are commenced at the upper

and lower angles of the wound and enough of them employed to bring about what is sufficient to allow the drain to function. To protect the strips and render them pus and moisture proof, they are covered with either shellac or a commercial preparation known as ambroid. As far as can be seen, the liability to hernia is less than in some other types of drainage. One must have an ample opening in these desperately ill patients, and since no sutures are employed there is no sloughing, with consequent loss of fascia, hence if later on we must repair a hernia it is a most simple procedure.

The *after care* of these patients, most of them extremely ill, is extremely important. If by a surgeon we mean a well-educated *medical* man who operates, it is obvious that "routine care" is not going to be sufficient. These unfortunate patients are toxic, and often to a most severe degree. They suffer a great deal of pain and are for many days a cause of great anxiety to those who are responsible for their care. Long, long ago we found that hot flaxseed poultices or continuous hot packs to the entire abdomen were a most valuable help for the first few days. It surely does help overcome the pain, somehow I go on the idea that the distension is less, and there is no doubt in my mind that their action on the liver

is not a theoretical one. Naturally drips of sodium bicarbonate and glucose must be employed in sufficient quantities to renew fluids and supply a certain amount of nourishment. Unless contraindicated, we put in the first solution immediately after operation—anywhere from one to two ounces of mineral oil, digitalis in certain cases also in the rectal fluids, for the first forty-eight hours enough morphia to combat the shock and relieve the severe pain (for severe pain can do a great deal of harm), and in those cases that require it intravenous administration of glucose or saline solution.

#### SUMMARY.

Acute appendicitis belongs in that important group known as the acute surgical abdomen.

Get them early and you usually get them well.

Delayed or faulty diagnoses have a harsh penalty.

The death rate rises rapidly in those cases operated upon after rupture has taken place, and a progressive peritonitis, with its resultant toxemia, seems to cause the majority of deaths.

Every patient constitutes an individual problem as to diagnosis.

Many times an exploratory operation must be employed, for an exact diagnosis may be impossible.



## NECROLOGY

**Silas Canady Blaisdell,  
New York and Winterport,  
1856-1929**

Known throughout the nation for his skill in operations and papers concerning fractures of the skull, Dr. Blaisdell, after a handsome career in New York, died in the family mansion, the house of his birth, in Winterport, June 13, 1929, following a paralytic stroke a few months earlier.

Born May 20, 1856, the son of Ebenezer Ferren and Nancy Chase Blaisdell, of Winterport, he was educated in the common schools at home, obtained a clerkship in New York, studied medicine in spare hours, day and night, and finally obtained his degree in medicine at the School of Physicians and Surgeons in 1882. After a term as interne in the Eastern District Hospital in Brooklyn, he was appointed to the staff and gradually rose to be the head surgeon of the hospital, a position which he held for thirty years or more. He soon developed an uncanny knowledge concerning the surgery of the skull,

and especially of replacement of its fractures. He wrote one epoch-making paper on this topic, invented ingenious instruments for skull repairs, and was well known everywhere for this unique specialty. He served as consultant in many metropolitan hospitals, was a member of various surgical societies, and lectured widely on regional and applied surgery. His most celebrated case, after all, was that of stitching successfully a serious incision in the left ventricle of the heart from a stab wound in that region. The patient made a fine recovery.

Dr. Blaisdell retired from metropolitan practice a few years ago and settled in Winterport, became a member of our Association, and surgeon to the Waldo County Hospital at Belfast, where his services were highly useful and much appreciated. His continuous work led to a paralytic stroke in March of the present year, and he passed away in June in the home of his birth. He was twice married, his second wife, Mary Elizabeth Rose, surviving him.

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## COUNTY NEWS AND NOTES

### **Kennebec County Medical Association**

The quarterly meeting of the Kennebec County Medical Association was held at Central Maine Sanatorium, Fairfield, Maine, Thursday afternoon and evening, October 24, 1929.

The meeting was called to order at 5.00 o'clock in the afternoon by the

President, Dr. H. E. Williams, who presided over the clinical session, which consisted of the following: Case demonstrations, pulmonary tuberculosis, examination of chest, X-ray, fluroscopy, by Dr. John Shaw, superintendent, and his assistant, Dr. William Tymms, of the sanatorium.

Dinner was served at the sanatorium at 6.30 P. M., followed by a short business meeting.

Application for membership of Clair S. Bauman, of Waterville, was received and referred to the Board of Censors.

The following papers were read at the scientific session: "Post-operative Pulmonary Embolism," by Dr. George A. Coombs; "Life-saving Methods in Acute Surgical Emergencies," by Dr. Edward H. Risley. The papers were carefully prepared, very interesting, and brought out many points of importance. Both papers were fully discussed. A rising vote of thanks was extended to Dr. Shaw for his hospitality and the interesting program which he furnished for the society.

The following members and guests were present: Dr. H. E. Williams, Mt. Vernon; Drs. F. R. Carter, George A. Coombs, Augusta; Drs. John F. Shaw, H. H. Adams, W. H. Walters, Wm. R. Tymns, F. L. Tozier, W. L. Gousse, F. J. Robinson, R. A. Jewell, Fairfield; Drs. B. P. Hurd, N. Bisson, V. C. Totman, A. H. McQuillan, John O. Piper, Clair S. Bauman, L. G. Bunker, E. H. Risley, Waterville; Drs. J. W. Christensen, J. E. Hewitt, G. F. Lukianoff, Togus; Dr. F. H. Freeman, Pittsfield; Dr. E. P. Williams, Oakland; Dr. H. W. Smith, Norridgewock; Drs. W. G. Sawyer, W. S. Milliken, L. F. Norris, P. E. Gilbert, Madison; Dr. W. S. Stinchfield, Skowhegan; Dr. H. E. Marston, North Anson.

Respectfully submitted,

FREDERICK R. CARTER, M. D.,  
*Secretary and Treasurer.*

## United States Public Health Service

### DISTRIBUTION OF ENDEMIC GOITER IN THE UNITED STATES

Studies conducted by the United States Public Health Service during recent years indicate that the distribution of goiter in the United States, as disclosed by numerous thyroid surveys, parallels, in general, the goiter findings which were recorded among the drafted men examined during the World War.

There are manifestly wide variations in the methods of determining thyroid enlargement. The classification of various degrees and types of involvement also ranges within wide limitations. Uniform procedure is a necessity if findings in different sections of the country are to be compared.

Based upon the occurrence of goiter, wholesale prophylaxis by means of the use of small doses of iodine, either as iodized salt or otherwise, for endemic goiter is apparently not required in all states.

Individual thyroid surveys disclose foci of endemic goiter in localities not previously regarded as being located in goitrous territory.

Re-surveys are desirable for the purpose of learning the extent and character of changes occurring either under natural conditions or after prophylaxis has been instituted.

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 Ridlon, M. F., Bangor  
 Robinson, D. A., Bangor  
 Robinson, H. L., Bangor  
 Russell, E. W., Bangor  
 Sampson, H. W., Bangor  
 Sanger, E. B., Bangor  
 Schriver, A. E., Brewer  
 Schriver, A. H., Bangor  
 Scribner, H. C., Bangor  
 Sheldon, D. W., Stetson  
 Sherrard, F. D., Winn  
 Silsby, S. L., Bangor  
 Skinner, P. S., W. Enfield  
 Skofield, E. B., Corinth  
 Small, A. E., Bangor  
 Smith, A. K. P., Bangor  
 Smith, L. H., Winterport  
 Snow, H. E., Bucksport  
 Starrett, J. F., Bangor  
 Stone, G. H., Bangor  
 Strout, A. C., Dexter  
 Thomas, C. M., Brewer  
 Thomas, C. P., Brewer  
 Thompson, H. E., Bangor  
 Thompson, J. B., Bangor  
 Tomlinson, Edward, Orono  
 Trickey, W. B., Pittsfield  
 Varney, J. R., Old Town  
 Walton, R. D., Frankfort  
 Way, G. F., Jr., Lincoln  
 Weatherbee, Geo. B., Springfield  
 Webber, M. A., Pittsfield  
 Weymouth, F. D., Brewer  
 Whalen, H. E., Dexter  
 Witte, M. E., Jr., Bangor  
 Woodcock, Allan, Bangor  
 Worth, H. D., Bangor  
 Wright, L. G., Bangor  
 Young, E. T., Millinocket

## PISCATAQUIS

Brown, M. O., Dover  
 Bundy, H. C., Milo  
 Carde, A. M., Milo  
 Crosby, N. H., Milo  
 Dore, G. E., Guilford  
 Hathaway, W. R. L., Milo  
 MacDougal, W. E., Dover-Foxcroft

Marsh, R. H., Guilford  
 Merrill, E. D., Dover-Foxcroft  
 Nickerson, N. H., Greenville  
 Pritham, F. J., Greenville Junc.  
 Stanhope, A. H., Middleton, Mass.  
 Stanhope, C. N., Dover-Foxcroft  
 Varney, F. L., Monson

## SAGADAHOC

Bailey, B. A., Wiscasset  
 Barker, B. F., Bath  
 Day, D. S., Wiscasset  
 Fox, Horace, Bath  
 Fuller, E. M., Bath  
 Gregory, G. A., Boothbay Harbor  
 Irish, I. C., Bowdoinham  
 Kershner, W. E., Bath

Lincoln, J. O., Bath  
 Marston, E. J., Bath  
 Morin, H. F., Bath  
 Mullin, S. S., Bath  
 Snipe, L. T., Bath  
 Stilphen, H. L., Richmond  
 Stott, A. A., Woolwich

## SOMERSET

Brown, R. C., Skowhegan  
 Caza, O. J., Skowhegan  
 Dascomb, L. A., Skowhegan  
 De Veaux, Ormel F., Bingham  
 Earle, F. E., Canaan  
 Ellingwood, L. N., Athens  
 Gilbert, P. E., Madison  
 Humphreys, E. D., Jackman Sta.  
 Hutchins, E. L., North New Portland  
 Kinney, Burton O., Bingham  
 Lord, M. E., Skowhegan  
 Marston, H. E., North Anson  
 Milliken, W. S., Madison

Moulton, C. A., Hartland  
 Norris, L. F., Madison  
 Pratt, E. F., Richmond  
 Robinson, F. J., Fairfield  
 Sawyer, W. G., Madison  
 Smith, H. W., Norridgewock  
 Spear, H. S., North Anson  
 Stinchfield, W. S., Skowhegan  
 Tozier, F. L., Fairfield  
 Walters, E. H., Fairfield  
 Walters, W. H., Fairfield  
 Young, G. E., Skowhegan

## WALDO

Barker, N. B. T., Islesboro  
 Kilgore, A. E., Brooks  
 Larrabee, B. E., Belfast  
 Pattee, S. C., Belfast  
 Small, F. C., Belfast  
 Stevens, C. H., Belfast  
 Stevens, E. L., Belfast

Tapley, E. D., Belfast  
 Torrey, R. L., Searsport  
 Truworthy, H. L., Unity  
 Vickery, O. S., Belfast  
 Watson, W. L., Monroe  
 Wilson, E. A., Belfast

## WASHINGTON

Armstrong, C. M., Robbinston  
 Bennett, D. F., Lubec  
 Bennett, E. H., Lubec  
 Best, H. H., Pembroke  
 Bunker, W. H., Calais  
 Burritt, G. L., Harrington  
 Cleveland, W. F., Eastport  
 Cobb, N. E., Calais  
 Cook, C. E., Jr., Calais  
 Curtis, A. K., Danforth  
 Dyas, I. E., Eastport  
 Everett, H. S., St. Andrews, N. B.  
 Gilbert, W. J., Calais  
 Gray, W. E., Milltown, N. B.  
 Harmon, A. R., Lubec

Hunter, Sarah L., Machias  
 Johnson, C. E., Princeton  
 Johnson, H. O., Machias  
 Johnston, Stillwell, Vanceboro  
 Larson, O. F., Machias  
 Longfellow, J. W., Machias  
 McDonald, J. A., East Machias  
 Miner, W. N., Calais  
 Mundie, P. J., Calais  
 Murphy, J. L., Eastport  
 Murray, A., Lord's Cove, Deer Isle, N. B.  
 Stewart, Ralph C., Sangerville  
 Sullivan, E. V., St. Stephen, N. B.  
 Webber, S. R., Calais  
 White, E. A., Columbia Falls



## YORK

Abbott, P. H., South Waterboro  
 Allen, Cary D., Portsmouth, N. H.  
 Allen, S. W., York and Boston  
 Anderson, H. E., Milton Mills, N. H.  
 Baker, W. H., West Buxton  
 Barker, J. S., Kennebunk  
 Bragdon, F. A., Springvale  
 Clark, A. U. F., Saco  
 Cook, E. C., York Village  
 Cook, Edw. M., York Harbor  
 Davis, A. S., Springvale  
 Dennett, C. G., Saco  
 Dolloff, D. E., Biddeford  
 Durgin, H. I., South Eliot  
 Elliott, W. T., Berwick  
 Gordon, J. W., Ogunquit  
 Grant, H. D., Bath  
 Haley, J. D., Saco  
 Head, O. B., Sanford  
 Hill, P. S., Saco  
 Hisley, H. P., Limington  
 Jaques, E. D., South Berwick  
 Jones, A. L., Old Orchard  
 Kelley, W. H., Sanford  
 Kendall, C. F., Augusta  
 Kinghorn, C. W., Kittery  
 Lamoreux, A. C., Sanford  
 LaRochelle, J. R., Biddeford

Lightle, W. E., North Berwick  
 Lord, F. C., Saco  
 Love, G. R., Saco  
 MacDonald, J. H., Kennebunk  
 McCabe, Chas. P., No. Berwick  
 Moulton, B. M., Springvale  
 Owen, H. A., Bar Mills  
 Precourt, G. C., Biddeford  
 Prescott, H. L., Kennebunkport  
 Randall, J. A., Old Orchard  
 Ross, F. A., South Berwick  
 Ross, H. D., Sanford  
 Sawyer, S. G., Cornish  
 Schafer, J. W., Berwick  
 Shapleigh, E. E., Kittery  
 Small, F. E., Biddeford  
 Smith, F. W., York Village  
 Smith, W. W., Ogunquit  
 Stewart, J. C., York Village  
 Stickney, L. B., Saco  
 Stimpson, A. J., Kennebunk  
 Syphers, L. R. S., Cornish  
 Thompson, C. E., Saco  
 Tibbetts, H. K., Limerick  
 Weeks, Geo. W., Cornish  
 Wentworth, B. F., Scarborough  
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 Dennett, C. A., West Baldwin

Higgins, Lelia, Wilton  
 Larrabee, C. C., Prospect Harbor  
 Rowe, G. D., Providence, R. I.  
 Stevens, T. H., Boothbay Harbor

## NEW ENGLAND MEDICAL COUNCIL

At the last meeting of the New England Medical Council in Bellows Falls, the following officers were chosen to serve for the ensuing year:

President, Dr. Bertram L. Bryant, Maine.  
 Vice President, Dr. George Blumer, Connecticut.  
 Secretary-Treasurer, Dr. Walter P. Bowers, Massachusetts.  
 Executive Committee (in addition to the above)  
     Dr. H. G. Partridge, Rhode Island,  
     Dr. Edwin A. Hyatt, Vermont,  
     Dr. David Parker, New Hampshire.

# THE JOURNAL

OF THE

## Maine Medical Association

Published under direction of the Council of the Maine Medical Association

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### \*CARCINOMA OF THE COLON AND RECTUM

By E. H. RISLEY, M. D., Waterville, Me.

Due to the steady march of progress in the diagnosis and treatment of many diseases, it becomes necessary from time to time to revise our ideas concerning certain diseases and their method of treatment. Carcinoma of the colon and rectum is happily one of these. There are, however, certain rather fixed misconceptions regarding early diagnosis, initial symptoms and the curability of the disease which need to be corrected. It is the object of this paper to try to clarify some of these points.

To the laity, and, we will venture to say, to the majority of physicians, cancer of these regions is still looked upon as a most hopeless and incurable disease. We would like to show that this is far from the actual fact.

Through increasing experience and improvement in technic, mainly due to the efforts of Coffey, of Portland, Ore., and D. F. Jones, of Boston, operative procedures have been gradually per-

fectured to such an extent that at the present time cancer of the rectum, recto-sigmoid-junction and colon, if diagnosed and operated early, give a relatively low primary mortality rate and a very high percentage of actual cures. This is a direct contrast to that which prevailed even ten years ago, and improvement is still taking place. Cancer of these regions has been lifted from a position of almost absolute hopelessness to one of a most promising outlook. We no longer dread to tackle these cases. We expect to get a cure if we can get them early enough.

#### EARLY SYMPTOMS AND DIAGNOSIS

On the other hand, it still remains a regrettable fact that, with the great improvement in primary mortality and curability, there is not evidenced a corresponding improvement in operability. In other words, the percentage of cases diagnosed early and coming for early

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\*Read before the annual meeting of the Maine Medical Association, Poland Spring, Me.

operation has not increased enough so that we may feel at all complacent in regard to our keenness in handling these cases. When we can say that we have raised the operability to a point to correspond to our improved technic, mortality rate and curability, then we may congratulate ourselves that we are really adequately dealing with this disease, but not before.

Our main difficulty, of course, lies in the fact that, in the vast majority of cases of cancer lying above the immediate reach of the rectally examining finger, the symptoms are notoriously indefinite, insidious in onset, pointing to no definite part of the gastrointestinal tract, and, consequently, often permit the disease to advance to the inoperable stage before they become marked enough to show us the way to diagnosis while the condition is yet curable.

It seems to me that this is now the chief part of the cancer problem with which we are confronted—that of making a diagnosis early enough to place our patients *all* in the operable and curable class.

At first this seems like a big problem, but a little careful thought on the subject will show us wherein we can hope to turn present failure into ultimate increasing success.

In the very first place, we must train ourselves to adopt an attitude of distinct suspicion regarding *all* gastrointestinal symptoms in those of a definite cancer age. If we *constantly* look for trouble in the most trivial cases of intestinal disturbance, and follow up our

suspicious with thorough rectal, proctoscopic and X-ray examination, we will necessarily uncover a large number of cases which ordinarily escape our notice.

The picture of increasing constipation or diarrhoea, gastric disturbances, loss of weight and appetite, and perhaps attacks of abdominal pain with distention or passage of varying amounts of blood by rectum, is so clear and so typical that it should need no further discussion. This is the common picture of well-developed carcinoma of the colon or rectum.

Let us paint another picture and show wherein lies, at present, our most common source of failure, but which, if we become keen enough, should give us our greatest chances for success.

A patient of middle age or past begins to have more or less gas in the lower bowel, sometimes accompanied by slight general abdominal pain of very transitory nature, perhaps some loss of appetite. He does not feel quite as vigorous as usual and begins to notice more difficulty in getting a satisfactory daily stool. There is nothing really definite the matter, but as these indefinite symptoms continue, in spite of care in diet, the patient finally consults his physician for "indigestion," as he calls it.

This story ordinarily does not excite the remotest suspicion of malignant disease. But the point which I wish to emphasize as of the most vital importance is, that it *should* immediately excite the gravest suspicion on the part of the general practitioner, calling for a most searchingly thorough examina-



tion and surgical consultation. So often is this seemingly trivial chain of symptoms the arrow pointing directly to an already well-developed cancer of the colon, that it should never be passed over lightly.

This is a stage where gastrointestinal X-ray is often of greatest help in making an early diagnosis, and it should never be omitted. *But*, and let me stress this point with the utmost force, should the X-ray be negative, we yet have no right to set aside our suspicions and be lulled into a false sense of security because our main reliance in the diagnosis of most gastrointestinal lesions has failed here to point to definite disease, or even confirm our suspicions.

So definite and so suspicious is the above mentioned chain of symptoms that we believe, with Jones, that exploration is practically always indicated in such cases, provided, of course, the symptoms cannot be adequately explained on other grounds, or do not disappear after proper dietary treatment.

Even failure to find malignant disease of the intestinal tract in every case is not an argument against exploration, because of the fact that one or two cases with negative findings by no means outweigh the number of cases in which early disease *will* be found, the patient successfully operated upon and a permanent cure obtained.

To the man not continuously on the watch for malignant disease of the intestinal tract, this may seem very radical advice, but the crux of the matter is that surgical experience bears out

our contention in an increasingly gratifying number of cases.

We do our patient greater justice to suspect carcinoma than not to do so. We will discover many early cases of carcinoma of the colon if we do not only suspect it, but also insist on X-ray examination. We do our patients even greater justice to have the courage of our convictions, based on our suspicions, and advise exploration, at times, even in the face of negative X-ray evidence, and, lastly, we safeguard future patients with suspicious symptoms, even in the doing of exploratory operations which occasionally result in negative findings.

#### CANCER OF THE RECTUM AND ANUS

The above remarks apply especially to malignant disease of the various parts of the colon and are stressed first in order to bring out the importance of making early diagnoses in *obscure* cases.

I believe it is not generally appreciated that cancer of the lower rectum and anus has now become one of the most curable of diseases, largely because of improved operative technic. If this disease can be attacked before extensive glandular involvement has taken place, it carries a high degree of operability and a hopeful chance for permanent cure. The old, extensive and shocking Kraske operation, which gave a wide dissection of the local disease, but rarely reached the entire lymphatic involvement, has given place to the combined abdomino-perineal operation, done either in one or two stages according to the custom or dexterity of the

operator, or the condition of the patient. This operation attacks, first of all, the highest of the chain of lymphatics and sweeps this downward into the deep pelvis, together with the local disease. By this means later extensions and metastases are largely prevented and the local disease widely eradicated.

But, in spite of its accessibility to the examining finger and its usual very pointed early symptoms, cancer of the lower rectum is still a disease which is too often overlooked or brought to the surgeon too late for operative cure.

Whereas the blame for late diagnosis in carcinoma of the colon lies largely with the physician, we think it is a fact that the blame for late diagnosis in carcinoma of the lower rectum lies both with the physician and the patient. This is true because so many patients pay little or no attention to blood at stool, either because they do not look for it, or because they have hemorrhoids and naturally attribute any bleeding to them.

Our greatest hope of getting earlier diagnosis from the patient in rectal cancer is in the further education of the public in malignant disease. Our main hope at present, therefore, lies in impressing physicians everywhere with the absolute necessity of making *routine* rectal examinations in all cases complaining of any irregularity of stool or any bleeding or discharge from the anus. Even that most common bane of life—*pruritus ani*—should be suspected of having its origin in some malignant growth higher up, as is not too infrequently the actual case.

One could instance many cases of hemorrhoids with constant bleeding for many months who had not consulted a physician. When they at last did so, however, an inoperable condition was found. Such a disaster can only be ascribed to the patient's ignorance.

But other cases are constantly being seen, in which symptoms were highly suggestive of malignancy, and yet a rectal examination had not been made previous to surgical consultation. The blame for this can only be laid to the physician, who neglects to make a routine rectal examination a part of his daily habit in practically every case he sees.

The foregoing remarks are not made in a spirit of criticism, for we are all sometimes guilty of sins of omission, but they are made in the earnest hope that the stressing of such facts may possibly lead to greater care in the future.

The routine use of the proctoscope or sigmoidoscope is also a thing which we would urge on everyone who is at all anxious to clear up obscure lower bowel conditions.

I should like to stress here two points not generally considered in making a diagnosis. 1. Carcinoma of the recto-sigmoid is often at first evidenced by lumbo-sacral backache or sciatic pain due either to pressure on pelvic nerves or of possible toxic origin. The orthopedist would do well to refer all obscure cases of low back pain to the surgeon for diagnosis. 2. Carcinoma of the upper rectum may be overlooked if one relies on the proctoscope

entirely for diagnosis. A growth may be present in the wall of the bowel which, if not ulcerated, escapes observation. It can be detected only by the examining finger pushed very high into the pelvis. One should, therefore, not rely on any one examination to make his diagnosis, but should employ all available means at hand.

It is not our purpose at this time to go into the interesting details of the operative technic, which have so largely brought about our improved results. We wish, however, to report a few cases, simply to illustrate what can be expected in the way of results if certain definite plans of procedure are carried out with consistency.

Mrs. H., 76, had suffered for a year from repeated slight attacks of acute indigestion, accompanied by great difficulty in getting the bowels to move satisfactorily, nausea, occasional vomiting and some loss of weight. An indefinite mass could be felt in the epigastrium, and her physician—a good observer—suspected carcinoma of the stomach. Her general condition was not good. She was therefore advised to go to the hospital for X-ray study. This proved to be a wise precaution, as the giving of the bismuth meal turned out to be the last straw which tipped the balance of an incipient intestinal obstruction. She was operated upon as an emergency obstruction case the evening of the X-ray examination. A complete shutdown of a large cirrhus carcinoma of the mid-transverse colon was found (this being the mass suspected by her physician of being in the stomach). A

cecostomy only was done at this sitting. A week later she had recovered from the effects of her obstruction and a resection of the disease was done, using an end-to-side anastomosis. The enterostomy closed spontaneously. She lived to be eighty-two years old and died of pneumonia.

This case illustrates the danger of bringing on an acute intestinal obstruction in the course of X-ray examination of the gastrointestinal tract. Such disasters are not uncommon and can be guarded against by always having the patient with suggestive signs of previous or impending obstruction in a hospital before attempting X-ray examination, or one may perhaps be wiser to omit such examination in some cases.

Mrs. B., 68, was operated upon for double malignant ovarian cyst, with signs of impending obstruction. She had suffered for six months with constipation, low abdominal pain and tympanites, often accompanied by nausea and vomiting, and her symptoms were thought by her physician to be due entirely to the pelvic mass. A pan-hysterectomy was done for an adherent mass, which, of itself alone, might have caused her obstruction. Before closing, an exploration of the upper abdomen was made. The liver was negative, but a large malignant mass was found to almost completely shut off the mid-colon. A cecostomy was done and the abdomen closed. After eight days a resection was done, using an end-to-end anastomosis. The cecostomy was closed later under local. No preliminary X-rays were taken in this case. The patholog-



ical report on both colon and ovaries was adenocarcinoma. The patient lived two years and died of metastases to the lung. The lesson from this case is obvious. One should never neglect complete exploration of the whole abdominal cavity, especially in malignancy.

Mr. H., 70, had increasing constipation, slight attacks of left-sided abdominal pain for six months, with loss of seven pounds in weight. Examination showed a slightly distended belly and definite movable mass just opposite the left iliac crest. Bismuth enema showed typical napkin ring filling defect at this point. The patient's family were particularly insistent that an operation be chosen which would not immediately endanger his life, and as he was an ideal subject for this type of operation, a three-stage Mickulicz was done. He made a fine recovery, is alive and free from recurrence five years after operation, in the best of health, and has a daily stool without catharsis. This operation, we believe, is the ideal one for carcinoma of the mid-sigmoid and needs no accompanying cecostomy unless the patient has an imminent obstruction.

Mrs. L., 62, had in 1917 what one could rightly call a criminal operation, a purse-string removal of a plum-sized growth in the lower rectum, the specimen not being examined pathologically. In 1922 she had a very large recurrent mass three inches above the internal sphincter. She was operated upon in two stages. At the abdominal operation the liver was negative, the colon was severed at the recto-sigmoid junction and the proximal end brought out

through a left inguinal incision. The distal end, together with all glandular involvement, was dissected free as low as possible into the pelvis, and the peritoneum closed over this. Seven days later the mass was removed through the perineum. She was discharged in three weeks, is alive and well, and free from recurrence seven years after operation. This case shows what can sometimes be done in these slow-growing, non-metastasizing adenocarcinomata of the lower rectum.

Mrs. B., 63, began to have rectal tenesmus and bleeding one year before entrance. Biopsy of an atypical growth situated three inches above the internal sphincter showed adenocarcinoma. Operation was done in two stages. The liver was negative. Six inches of sigmoid above the growth, together with all glandular involvement excised, proximal end brought out through left colostomy opening, distal end brought out through anus. A pan-hysterectomy was also done. Six days after recovery from considerable shock, the mass, together with about half of the vagina, was removed perineally. She is alive, active and free from recurrence six years after operation. This case illustrates what can sometimes be accomplished by more extensive operative measures in seemingly unfavorable cases.

In other cases in which the radical operation cannot be done on account of fixation of the growth or extensive glandular involvement a colostomy is always done, with immediate relief of tenesmus and pain, and an accompanying improvement in general condition with gain in

weight. Four such cases are still alive after three years, each doing their work and with the local disease not much changed. One case had radium and X-ray and is much improved, and is alive four years after colostomy. These cases are mentioned to show the very decided benefit of doing colostomy even in the absence of immediate obstructive symptoms. One thing that colostomy accomplishes in every case is to allow an almost complete subsidence of the accompanying infection and swelling always present around a well-developed cancer of the lower bowel, and in this way the patient is relieved from pain and tenesmus and practically always gets prolongation of life in greater comfort.

#### SUMMARY

The object of this paper has been to stress the following points:

1. The surest way to improve our statistics in carcinoma of the lower bowel will be for the general practitioner to form the habit of constantly suspecting malignancy in all cases showing irregularity of the bowels, slight attacks of indigestion, increasing amounts of gas in the bowel, slight loss of weight, repeated slight attacks of transient abdominal pain, or blood or mucus in the stool, in all patients of a cancer age.
2. Should the above chain of symptoms not be explained on some other ground, careful rectal, proctoscopic and X-ray examination should be made at once in order to rule out malignancy.
3. Even when this examination is negative, if symptoms persist in spite of dietary treatment, there may be some cases in which exploratory operation is not only justified, but should be urged.
4. There is never any excuse for not making a rectal examination in any case with gastrointestinal symptoms, no matter what part of the tract is suspected of being the seat of trouble.
5. Colostomy, in the inoperable group, is an operation of the greatest comfort and benefit to the patient and should practically always be done, not waiting for the development of obstructive symptoms.
6. If we would suspect malignancy oftener we would find it oftener, and in this way would materially raise our operability and hence our curability. The fault lies not so much with the inherent incurability of the disease as with our failure to diagnose it early enough to make it curable. Carcinoma of the colon and rectum is one of the most curable of the carcinomata if taken in time.

## \*HIGH SCHOOL ATHLETICS FROM A MEDICAL STANDPOINT

By S. A. COBB, M. D., Sanford, Me.

The subject, "High School Athletics," is a vitally important one. It is not the doctor and the physical instructor in our colleges, but the teacher in our public schools who is the heart of the problem of health education.

A generation ago it was the sole duty of the teacher to improve the student's mind while the doctor spent his time in trying to cure disease. By study and experience we have learned that a sound mind is not at its best unless it has a sound body in which to function, and that the prevention of disease is far more important than the cure. Thus it was inevitable that the teacher and the doctor should be drawn together under the head of physical education.

The best time to train and direct the bodily energies to the formation habits that shall result in the one prime end of health is during childhood and youth. The trained athlete never loses his love for well-directed bodily exercise. The contrast between an intelligently directed gymnastic course and the usual athletic training lies in the fact that in athletics those who do not need the training get it, where in the gymnasium each student gets the exact kind and amount that he needs for his physical development.

Our richly endowed colleges all have physical education departments that are well able to give each student a thorough physical examination in order that he may have a systematic manual

in correcting his bodily defects. If he has pathological vital organs, such as the heart and kidneys, he then may be kept out of the more strenuous sports. Now if this is of importance to our college students, of how much more importance it must be to our high school boy or girl who has just reached the age of adolescence, generally under weight, with bones and tissues tender and soft. The time is soon coming that before the high school student is allowed to participate in strenuous athletics, such as football, baseball and track, he will be obliged to show a doctor's certificate of physical fitness, together with one showing parent's approval. This latter certificate also frees the school authorities from any responsibility in case of accident or illness resulting from the game. Our athletic director in Sanford has recently adopted this plan. The certificates read as follows.

### ILLUSTRATIONS

No. 1.

#### SANFORD HIGH SCHOOL

#### Physical Examination Certificate

September 15, 1929.

This is to certify that John Jones, pupil of the Sanford High School, has been examined and found..... physically fit.

Fred Greene, M. D.,

*Health Department.*

\*Read before the Maine State Teachers' Association, October 25, 1929, Portland, Me.



## No. 2.

## PARENT'S APPROVAL

## Participation in High School Athletics

I hereby certify that John Jones has my approval to play on the athletic teams of the Sanford High School, as follows:

Football  
Basket ball  
Baseball  
Track

(Parent will draw a line through sports or events not approved.)

I understand that the school authorities assume no responsibility for accidents and injuries that members of the various athletic teams may receive, either in connection with regular games or in connection with practice games, except to render such first aid treatment as seems proper, and, if necessary, to take the injured player (or member of the team) to his home or to such other place as may be advisable for further medical attention.

Date September 20, 1929

Address .....

Signed: John Jones,

*Parent or Guardian.*

There has been much research work done in medical schools trying to discover what harmful effects can arise from athletics. It is known from the most careful X-ray studies that *strenuous* athletics cause hypertrophy of the heart. This condition in a normal heart is physiological rather than pathological, and Lewis, the English heart specialist, writes that it would be impossible for an athlete to put enough

load on a normal heart to cause permanent damage. We do know, however, that acute dilation of the heart, followed in some cases by death, does occur in athletic games. The only answer to these cases is that there must have been a damaged heart to start with. Now it is not possible for every high school student, before he participates in athletics, to have electrocardiogram and X-ray pictures. Neither is it possible to always have expert physical examinations. There are, however, certain functional tests that can always be given. The pulse should be taken before exercise, immediately after exercise, and after two minutes. The test usually given for exercise of the heart is twenty-five hops on each foot. The pulse will go over a hundred immediately after exercise, but should be back to normal after two minutes. If it is possible to take blood pressure readings, one finds in the normal heart an elevation of the systolic pressure, which soon returns to normal. A systolic pressure that stays up, or a heart that remains accelerated, means some organic trouble, either in the heart itself or in the circulatory system. No athlete should be allowed to compete in games immediately following an acute infection, such as influenza or sore throat, because we have no method of telling how much the heart may be affected. We had an illustration of this recently—the death of Pancho Villa, the fly-weight boxing champion, who fought while having an ulcerated tooth, and died from circulatory trouble a few hours after.

We know that *strenuous* exercise affects the kidneys, because after football games sugar and albumin have been found in the urine of a large percentage of the players. It is a curious fact, however, that substitutes who do not enter the game show similar findings in their urine. This is a nervous phenomenon, and physiological in character, but might be very dangerous in a previously damaged circulatory system. Some of the nervous manifestations accompanying the training of athletes are very hard to explain. We hear common expressions such as "He is off his feed," "can't sleep," "gone stale." These are certain types of nervous conditions, and are problems not yet satisfactorily worked out.

Teeth and tonsils, if abscessed, should be removed before any boy is allowed to contest in strenuous athletic sports.

The feet naturally play a great importance in athletics, and each student should have his feet examined for possible strained or fallen arches, weak ankles, corns, or other pathological conditions.

Diet plays a great part in keeping in the best physical condition and avoiding the above nervous conditions. Modern scientific investigation into the various phases of dietetics have shown us that the best diet for the man in training is what we New Englanders call good, wholesome food, with a proper balance of protein, carbohydrates and fats. The high school boy needs more protein than the adult, because his bones and tissues are growing.

Before taking up the games of foot-

ball, baseball, basket ball and track, each player must go through the hardening process, which takes at least a week. If all the muscles are not flexible he will get muscle injuries, which, though trivial in nature, are very slow in healing. Any injury, however trivial, should mean for the player to keep out of the game until the condition is healed. It is a deplorable fact that even high school athletics are being commercialized. The athletic coach cannot pick his team at random. He must choose the best men and build an all-star team. The school must win or the coach must go. We should encourage our boys to get into the spirit of the game to win fairly and to lose with a smile. We not only can encourage the right spirit, but we can also do much to protect these bodies from harm. This means the best and latest equipment. Someone has wisely said, "A little less money for dead languages, and a little more money for living muscle, would be a good thing for all our schools." Be sure that the shoes fit properly and are free from nails. A protruding nail in a shoe may cause an infection of the foot that will keep a football, baseball, or track man out for the season. Protect the joints that have to stand the brunt of the work, and are liable to overstrain and bruises, with pads and supporters. If a boxer needs his hands taped for a contest to prevent injury, it stands to reason that a football and baseball player needs similar support to his ankles and possibly his wrists. A football player also needs protection to his head, shoulders, collar bones, elbows,

knees and hips. Keep the boys' equipment clean. Have it sterilized periodically. An epidemic of boils has ruined more than one championship team. Apply first aid treatment to all injuries immediately. This means iodine or mercurochrome to all open cuts, and rest and support to such injuries as muscle bruises, sprains of joints or fractures.

Before closing, I do want to say something about the life expectancy of athletes. Some years ago, before the World War, strenuous American athletics were disapproved by many, and football for a time was abolished in some of our high schools and colleges. The big argument was that over-indulgence in athletics in youth caused a bad heart, invalidism in later life, with death brought on at an early age. Of course with proper physical education this argument has been exploded. To-day the average boy athlete is graded A with life insurance companies, and is

gladly accepted by them as a first class risk.

In summarizing, I have tried to bring out the following four facts.

*First.* Athletics in our schools must be supervised as scholarly pursuits, and are as necessary as stated periods of study.

*Second.* The high school student should not be allowed to compete in major sports without first having a competent medical examination.

*Third.* Each student should have physical training adapted to his own particular needs.

*Fourth.* Into the hands of the teachers and doctors is given the charge of keeping our girls and boys in good health.

We want to win, but remember, someone has to lose. It is rather our mission to build sound bodies to go with sound minds. We are building the American citizens of to-morrow.

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## NECROLOGY

### **John William Connellan, Portland, 1879-1929**

In many ways our good friend Connellan was a very remarkable man, for, although he looked just a little bit cross and seemed to be a little bit too large and overbearing, yet he radiated good cheer always. He always had a smile for his friends, and they were numerous. He might have looked a bit cross when he was not thinking of you, but when you hove in sight and held out

your hand to be grasped in his big hand he was "a smile all over," as you might say. In brief, he was big-bodied and big-hearted. Looking at him you would have said that he would have lasted many a year, but those who saw him on a Saturday heard with grief that he was ill with double pneumonia on Monday, and had left us all forever on Tuesday, October 1, 1929. He must have died from acute œdema of the lungs following double pneumonia.



His medical career, briefly summed up, runs this way: He was educated in the Portland public schools and the high school, and obtained his medical degree at Bowdoin in 1892.

He was born in Portland, October 21, 1879, the son of James and Mary Catherine Rynne Connellan.

After obtaining his medical degree he served as interne at St. Mary's Hospital, Lewiston, three years, and then settled in Portland, his native city. He soon went into politics and remained commingled with them the rest of his life, but being always in the minority party, he did not become nationally famous, as he might have been if he had gone to Congress as a Democratic candidate. He served as county physician of Cumberland for several years and was always extremely popular. He wrote one or two effective medical papers, often spoke at meetings of the county and state societies, and was very much liked by physicians in every age of life.

Some people loved to call him "Silent John," but those who belonged to the Elks or to the Portland Winter Stove League (the jovial members with their feet up against the warm iron body of the stove), or to the "Knockers," knew that he could talk and tell a story with any physician who ever practiced.

He belonged to the School Board of Portland for some years, and was a familiar figure in the lobby of the Fal-mouth Hotel, lived happily with his wife, the former Mrs. Ella Coffin Hay, but having no children of his own, he is survived by her and a mother, sisters and a brother.

John William Connellan was a man who will long be remembered and often talked about by those who knew him whenever conversation turns upon delightful friendships of the past.

### **Benjamin Glazier Willey Cushman, Auburn, 1863-1929**

After a long illness from complications with cancer, and in spite of repeated operations, Dr. Cushman died October 21, 1929, after a long and painful illness.

He was born April 2, 1863, in Sumner, the son of Samuel Gilman and Sophronia Hersey Chase Cushman. He graduated with high honors from the Edward Little High School and from Bates College in 1885 as Phi Beta. He then taught as sub-master, specializing in analytical chemistry at Bates, and then continuing here and there his medical studies, he obtained his degree as a physician at Bowdoin in 1892. Soon after this he laid aside the study of chemistry and gradually worked into a surgical practice, so that ultimately he was the head of the staff of the Central Maine Hospital and senior surgeon. He followed the advances in surgery by repeated post-graduate courses at home and abroad, was a member in high standing in the American Medical and Maine Medical Associations, and held in high esteem as a surgical consultant in difficult cases. He was very active as an officer of the County Medical Society, a steady attendant of the State Medical Association, and is to be regarded as a smart, capable and honor

able master of surgery, strong in diagnosis, skillful as an operator.

He was married early in life to Miss Carrie Peabbles, and is survived by her, and by a married daughter and a son, a promising student of Bowdoin College of to-day. Dr. Cushman was a man of great prominence in Maine surgery, and his leading influence on younger men will be missed.

**Gardner Luther Sturdivant,  
Bethel, Yarmouth and South Portland  
1873-1929**

After an acute illness, Dr. Sturdivant, the son of William and Mary Fowler Sturdivant, of Westbrook, died March 13, 1929, a few days beyond his fifty-sixth birthday. After an early education in his native town, he studied at Fryeburg Academy, taught school and was medically graduated from the Bowdoin Medical School in 1899. He later attended post graduate courses at the Bellevue Medical School.

He settled first in Bethel, until 1905, then removed to Yarmouth until 1923, and finally settled in South Portland, where, after a series of successful years of practice in those three different places, he died much lamented.

His attention was chiefly devoted to the study of tuberculosis, and after an invitation to read a paper before the Oxford County Medical Society he chose for his subject the diagnosis and most approved treatment of this devastating disease. He was an excellent diagnostician and successful in his remedial measures. As a man he was highly thought of, much liked by the

people of the towns in which he practiced, and was, for one item in his life, devoted to music. Possessed of an excellent tenor voice, he was active for many years as leader for county choruses who took part in the famous Festival chorus concerts, which delighted musicians of Maine so long as they lasted. It was a regret to him when their attractiveness seemed to decline, whilst his never waned.

Dr. Sturdivant was personally a most attractive man; his pictures smile at the lookers-on. He was married in 1900 to Miss Ida Palmer, of Brunswick, the daughter of a physician herself, and a fine helpmeet for a studious and successful practitioner of medicine. She survives him, and with her a married daughter, but a son died early in his life.

**Talcott Ostrom Vanamee, Portland,  
1879-1929**

On the first Tuesday in October our lamented comrade in medicine read before us a very remarkable paper on "Physiotherapy in Medical Practice." Without emphasizing too much the apparent advantages of this new treatment, he displayed before his listeners a very well-written account of its advantages and value. He enlivened it with a curious case or two, so that everybody listened to it with pleasure and gratification. A week from that evening he died suddenly from a disease of the heart, from which none of his friends knew that he was suffering. He has gone along and left a kindly record by which to remember him.

The son of William and Lida Ostrom Vanamee, he was born at Middletown, N. Y., October 12, 1879, and was thus only a few days short of his fiftieth birthday. He was educated at the "Gunnery" School and at St. Stephen's School, well-known private institutions in the state. He obtained his degree at Hamilton in 1898, and his medical degree at the College of Physicians and Surgeons in 1904. He practiced at first in Newburgh, but after his marriage to Miss Eleanor Wright, of Portland, he settled here for practice in 1912, and was very fortunate to have excellent introductions, so that he was soon very busily engaged in practice. During the great war he did excellent service in medical examinations and came home again with a fine military record. Soon after this he took up physiotherapy in great earnest and continued to advance its benefits unto the end of his life. Traveling in Europe last summer, he and his wife happened to be in a railroad accident in Belgium, and he, being the only physician on the

train, was able to be of great service, and received from the railroad corporation grateful thanks for his first aid for forty wounded in the accident.

He was a man rather reserved in his conversation with physicians, but abundantly conversational with other friends, and as a consultant was held in high esteem in medical circles. Oddly enough, although he was fond of fishing and gunning and sports, he took greater pleasure as a side issue from active practice in being a carpenter, and it was said of him that he made almost entirely with his own hands the guest's addition to his delightful cottage by the sea, where he lived all the year round.

Finally, his married life was one of great charm and social entertainment, and he is now survived by his widow and four children.

Many anecdotes might be added concerning the personality of Dr. Vanamee, but a regretful lack of space prevents us from dilating upon them at any greater length than this.



## JOURNAL OF THE MAINE MEDICAL ASSOCIATION

Dr. Frank Y. Gilbert, 148 Park St., Portland, Editor

Dr. Philip W. Davis, Portland, Associate Editor

Dr. James A. Spalding, Portland, Necrologist

Dr. Bertram L. Bryant, Bangor, Secretary Maine Medical Association

Dr. John Sturgis, Auburn, Chairman, Board of Council

Dr. Clarence Kendall, Augusta, State Commissioner of Health

D. F. W. Mann, Houlton, Chairman Committee on Public Relations

Dr. Mortimer Warren, Portland, Chairman Cancer Committee

Dr. J. L. Johnson, Bangor, Chairman Scientific Committee

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### EDITORIAL COMMENT

#### The Journal

The present management would deplore the discontinuance of the JOURNAL and welcome any change which will help to make it a better publication. To join our efforts with those of the other New England States in producing a more representative New England journal has been suggested as an alternative course. This would doubtless be an easier solution of the problem than an attempt to improve our own publication; but the easier way is by no means always the best. State medical journals are not commercial enterprises. The Association must understand this, and be willing to finance our JOURNAL in excess of its possible earnings.

Our state, situated as it is rather remote from centers of great activity and thought, needs the JOURNAL to link it more closely with these centers. With your help, this contact with the medical world can be satisfactorily maintained. Much of all that happens and is published of medical interest finds its way into the office of the JOURNAL. It is our task to make this material of

more practical use to the physicians of Maine, and no out-of-state publication is in a position to do this so effectively.

The JOURNAL believes that the office which your State Secretary has to administer could be well and more economically handled from its own office. As it is, much material comes into each office which could be sorted, appraised, and filed for reference, or made of some immediate use if the office of State Secretary and editor were one.

While the editing of a publication of any sort is perhaps essentially a one-man affair, no individual can produce a worth-while state medical journal. Your JOURNAL needs and must have the hearty co-operation of the profession if it is to be more than the means of recording and publishing the transactions of our annual state association meeting. A state journal helps to unify local medical interests, and to be successful it must contain matter which will appeal to its readers as worth while. We agree with the remarks made by Dr. Fishbein at a recent meeting of state editors and secretaries in Chicago. He said, in substance, that

a state journal should be of the greatest value to the members of the state association; that it need not be highly technical; that originality is desirable, though not essential. He also said that the journal helps educate its contributors, though it may not greatly edify its readers; that local news and notes are very important; hospital notes, reports of staff meetings, changes in the staff, and the character of the work being done, should be included; also that activities of the various county societies deserve a place, as do book reviews, case reports, and, lastly, pithy editorials discussing local and current happenings in the medical world: that all these should be published, as far as possible, at the time of occurrence—not three months later.

With your support, the JOURNAL believes that we can place our publication in the class of those which do contribute something to medical progress.

P. W. D.

### Dirigo

The motto of our state is "Dirigo," and few are unacquainted with the political axiom, "As goes Maine, so goes the nation." However much of actual truth these words convey to-day, we may still take pride in the undoubted fact that this state has led rather than followed, not alone in political matters, but in the far more important questions having to do with the health of the people.

Maine was the first state to sincerely oppose the evils of intemperance, and whatever the shortcomings of the pres-

ent Federal Prohibitory Law, the passing of the saloon was doubtless an unqualified blessing. Who would advocate the return of the saloon as a moral, economic or health measure? Again, our state was a pioneer in the fight against tuberculosis, with very real results in diminishing the ravages of this disease within her borders. In the course of a very few years the decreasing mortality so impressed the public that many laymen, women's clubs, etc., organized themselves in the interest of public health, believing that organized effort might be as effective with other diseases. This campaign against tuberculosis was organized, led and controlled by physicians. The health activities which followed have often lacked the leadership of the profession, and suffered thereby. There has been much good accomplished by the awakening of public interest in health matters, in spite of the fact that there has been re-duplication and not a little misguided effort.

The most serious medical problem to-day, and one of nation-wide import, is how to correlate and make more effective for good the many agencies which have been developed to improve and conserve the health of the people, and care for them when sick. The problem is an administrative one, and the profession must assume a proper share in its solution. Medical matters must be dealt with by medical men. Medical charities cannot be wisely or effectively administered without medical advice. Hospitals cannot be wisely conducted or render the maximum

amount of service to the public when controlled by boards composed entirely of laymen. No hospital without medical representation on its board can secure what every hospital must have, the whole-hearted support of the profession and the public. Such hospitals will not, as a rule, be served by the best physicians in the community. Those who manage hospitals must realize that the profession could perhaps do without hospitals, but hospitals could not run a day without physicians.

Public health activities must also be guided by the profession. Descartes said, in his day, that if the world was ever to be lifted out of its misery, it would be accomplished by doctors. The profession has gone a long way to fulfill this prophecy; but order will never come out of the present chaos in medical affairs until the profession awakes, asserts its power, and applies itself to its proper task—the guiding and controlling of its own affairs.

P. W. D.

### **Report of Delegate to A. M. A. Convention, Portland, Ore., 1929**

The Portland, Ore., meeting of the A. M. A. proved most interesting and constructive in every detail. The exhibits were of high order and the different sections were well attended. The House of Delegates considered mostly matters of routine; nothing especially new in medicine or surgery was advanced. Considerable discussion took place from time to time concerning prohibition, but apparently the delegates desired to hear nothing of it, as certain

ones were “cried down” on the floor when attempting to revive the “wet and dry issue.” President Thayer inadvertently made a subtle reference to prohibition in one of his addresses, and a certain divine from Portland, Ore., accused the President of being wet and using the A. M. A. as a “wet tool.” This was *headlined* in the press of the West, and a special meeting of the House of Delegates was called to discuss a mode of procedure to oppose the propaganda. After much discussion conservatism prevailed, and no reply was made to the charges.

The bulk of discussion hovered around “the increasing cost of medical and surgical service.” Arguments were made to show that this high cost was directly or indirectly responsible for the growth of commercialized medicine. In California, commercialized medicine is taking on a dangerous aspect. Groups of laymen, with a doctor or two and a few nurses as associates, have established surgical and medical clinics and dispensaries and are wholesaling their products, much to the detriment of medicine in general. No remedy was suggested for this evil.

The increasingly higher standards for medical education were discussed with “some for and others against them.” The lack of medical service in rural communities was again gone over; no one suggested a remedy. The family doctor was eulogized. The self-named specialists, without special training, practicing extortion, were held up as being responsible for ebbing *medical morale*. The cults came in for the



usual discussion. To your delegate it is plain that the troubles of the West and of the South are very much the same as our own in Maine. After various arguments and discussions on medical problems by men from every state in the Union, there seems to be one answer, one remedy, *educate the public* and coöperate.

Dr. William G. Morgan, of Washington, was elected President of the Association. In his acceptance speech he said, "The medical profession stands

ready, as always, to render adequate professional services to the people, upon terms within their means. Since it is claimed that the cost of medical care is excessive, it is our duty to study the problem in order to ascertain what, if any, is *our* responsibility in the matter, and to correct any inequalities for which *we ourselves* are responsible."

Detroit was chosen as the meeting place for 1930.

L. P. GERRISH.

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## COUNTY NEWS AND NOTES

### Androscoggin County Medical Society

A regular meeting of the Androscoggin County Medical Society was held November 22nd, with Dr. A. W. Plummer presiding.

Drs. Peaslee, Schneider and Schaffers were appointed as acting members of the Board of Censors.

Dr. Morris Goldman was elected to membership.

An application for membership was received from Dr. R. E. Bernard and was favorably reported upon by the Censors.

Drs. Scannell, Sturgis and Cunningham were appointed as a committee to draw up resolutions on the death of Dr. Benjamin Cushman.

Drs. Haskell, Baker and Buker were appointed as a nominating committee to report at the forthcoming meeting.

The society was very pleased to greet the visiting members, which included

Drs. Stewart, Davis and Makepeace. Dr. Davis acquainted the society with the general aims and anticipations and duties of the full-time Secretary and dwelt briefly upon the relationship of the physician to the community, both from a professional and economic point of view.

The Secretary reported upon the surgical clinic which was held at the St. Marie's Hospital in October and the medical clinic at the C. M. G. Hospital on the afternoon of November 22nd.

On completion of the business meeting Dr. Soma Weiss, Assistant Professor of Medicine at Harvard Medical School, was introduced as the speaker of the evening. His subject was "The Diagnosis and Management of Bilateral Kidney Diseases." His introductory remarks emphasized the value and possibilities of a closer relationship between the greater medical centers

and the smaller communities, and expressed a hope that greater advantages would be taken of the unlimited mutual benefits that may be derived from more frequent clinics and interchange of ideas. His address clarified a most difficult subject. The meeting closed with a vote of thanks to the speaker.

J. GOTTLIEB, M. D.,  
*Secretary.*

### **Cumberland County Medical Society**

The Cumberland County Medical Society held its twenty-third annual meeting December 13, 1929, at the Eastland Hotel, Portland, George M. Woodman, M. D., of Westbrook, presiding.

The paper of the evening, "Surgery in China," was by Dr. George W. Van Gorter, Associate Professor of Surgery (1920-29) at Peking Union Medical School, Peking, China. A clinic at the Maine General Hospital preceded the evening meeting.

The Secretary, Dr. George O. Cummings, read his fifth annual report, noting that the society now numbers 214, having lost by death three members during the year, Drs. Connellan, Sturdivant and Vanamee.

The following officers were elected President.—Dr. Mortimer Warren.

Vice-President.—Dr. S. E. Vosburg.

Secretary and Treasurer.—Dr. William Holt.

Councilors.—One year, Dr. R. D. Small; two years, Dr. H. F. Twitchell; three years, Dr. G. L. Cummings.

### **Oxford County Medical Association**

A meeting of the Oxford County Medical Association in conjunction with the Maine Public Health Association was held October 7, 1929, at the Western Maine Sanatorium, Greenwood Mountain.

9.00 A. M. to 12.00 noon, and 1.30 to 3.30 P. M., clinics on chest, heart and asthma diseases were conducted by Miss Bella Davis, R. N., of the Maine Public Health Association. Dr. Lester Adams was examiner for the chest diseases, Dr. E. H. Drake, Portland, for the heart, and Dr. C. B. Sylvester, Portland, for the asthma. There were a good number of very interesting cases presented by the family physicians from various sections of the county.

At 5.30 P. M., the regular business meeting was called to order by the President, Dr. J. A. MacDougall, Rumford, with Dr. J. S. Sturtevant, Secretary, Dixfield. During this meeting Dr. G. G. Defoe was elected to membership.

At 6.30 P. M., meeting was adjourned to the dining hall, where a fine dinner was served, after which the talks on the special subjects were made by Drs. Adams, Drake and Sylvester. Dr. F. Y. Gilbert, past President of the Maine Medical Association, gave an interesting talk on some throat diseases.

The following were at the dinner and talk: Dr. J. A. MacDougall, President, Rumford; Dr. J. S. Sturtevant, Secretary, Dixfield; Dr. and Mrs. D. M. Stewart, and Dr. W. B. Raymond, South Paris; Dr. and Mrs. Lester Adams,

Hebron; Dr. and Mrs. E. M. McCarty, Dr. and Mrs. J. A. Greene, Dr. and Mrs. Wm. T. Rowe, Dr. and Mrs. J. A. Thibodeau, Drs. H. M. Howard and T. E. Burr, Rumford; Dr. R. F. Willard, Bryant's Pond; Dr. Garfield G. Defoe, Dixfield; Dr. W. L. Hasty, Norway; Dr. and Mrs. R. E. Hubbard, Waterford. Visitors: Mr. and Mrs. R. A. Jewell, Fairfield; Mr. H. H. Adams, Belgrade; Mr. George P. Coffin, Hebron; Mr. H. R. Piper, Presque Isle; Dr. and Mrs. E. A. Drake, Dr. and Mrs. C. B. Sylvester, Dr. and Mrs. F. Y. Gilbert, Portland; Dr. and Mrs. W. E. Webber, Dr. and Mrs. Wm. Bolster, Lewiston; Miss Bella Davis, R. N., Augusta.

J. S. STURTEVANT, M. D.,  
*Secretary.*

### **Clinic and Meeting of Penobscot County Medical Society**

The annual clinic of the Eastern Maine General Hospital, held at Bangor, October 28 and 29, 1929, was well attended, and on October 29 a meeting of the Penobscot County Medical Society was held at the Eastern Maine General Hospital on invitation of the Superintendent, Dr. Stone.

About sixty members and guests sat down to a delicious dinner at 8.15 in the commodious dining hall of the nurses' residence.

Dr. H. E. Thompson presided at the business session.

Dr. Henry R. Viets, neurologist, Dr. Channing Frothingham, internist, Dr. Daniel F. Jones, surgeon, all of Boston, were present and contributed to the interest and success of the clinical meetings.

### **Penobscot County Medical Society**

The annual meeting and dinner of the Penobscot County Medical Society was held at the Bangor House, November, 1929. Dr. H. E. Thompson, retiring President, presided, and delivered an interesting paper on "Leucocytes," illustrated by charts and drawings.

Through the courtesy of the Metropolitan Life Insurance Company an interesting moving picture reel was exhibited entitled "Diphtheria." A plan is on foot to secure the protection of the children of Bangor, by immunization, against this dread disease, the Insurance Company undertaking to finance the cost of all immunizing material.

Dr. Cook, of Newport, was elected President, and Dr. Scribner, of Bangor, retained as Secretary for 1930.

### **Portland Medical Club**

The Portland Medical Club held its fifty-second annual dinner at the Columbia Hotel, December 3rd. There was a large attendance.

This is the oldest local medical club, founded in 1876 by Dr. Erastus Eugene Holt, still living, and a small group of Portland physicians. It has enjoyed a vigorous and healthy life, and has exerted at all times a powerful influence in forwarding those things which make for medical progress.

Dr. Spalding presented an interesting paper on "Success in Medical Practice."

The retiring President, Dr. Lester L. Powell, delivered a scholarly address on "Health and Old Age."

The following officers were elected: President.—John Allen.

First Vice-President.—Dr. I. M. Webber.

Second Vice-President.—Dr. J. C. Oram.

Secretary and Treasurer.—Dr. J. R. Hamel.



## NOTES

### Public Health Notice

ATTENTION—Physicians of Portland, as to possible incomplete reporting of tuberculosis cases.

Dr. Thomas Tetreau, Health Officer of the City of Portland, notes the small number of cases of tuberculosis (forty-eight in all) reported for the eleven months ending November 30, 1929, and requests your co-operation in checking again your records, and if incomplete, supplying his office with any additional cases.

### American College of Surgeons

The Sectional Meeting of the American College of Surgeons for the states of Massachusetts, Maine, Connecticut, Rhode Island, New Hampshire and Vermont is to be held at Worcester, Mass., on January 6 and 7, 1930, with headquarters at the Bancroft Hotel.

The program includes operative clinics in the Worcester hospitals in general surgery, eye, ear, nose and throat work, and the other surgical specialties. There are also clinical addresses, a scientific meeting, medical motion pictures, and a hospital standardization program, consisting of a round table conference, discussions and visits to local hospitals. A community health meeting will be held on the evening of January 6.

### Laying of the Corner Stone of the New Pavilion of the Maine General Hospital

The laying of the corner stone of the new pavilion of the Maine General Hospital at 11.00 o'clock Wednesday morning, December 11, 1929, just sixty-one years after the foundation of the institution, should mark the beginning of a new era of progress for modern medicine in Maine.

The founders and corporators of 1868 were men of vision, and the walls then erected still testify to their wisdom. The old hospital is in process of a very thorough renovation, and with the com-

pletion of the new wing in June, Portland and Maine will possess a perfect plant for the care of the sick.

As Judge Hale, chairman of the corporation, well said in a brief but very fitting address, "The world is just beginning to learn what hospitals mean." They have come to mean far more than "a place of health and shelter for the sick." They have come to be the very heart and center of medical interest, the inspiration of all medical progress. Hospital boards now realize that the administration of a modern hospital means far more than the difficult task of financing an institution, the erecting of fine buildings and the providing of facilities for the care of the sick. They are coming to realize that brick and stone do not make a hospital; that the efficiency of a modern hospital and its power for maximum service depends upon its personnel, its house staff, its nursing staff, and the physicians and surgeons in attendance.

Important as are business methods, hospital boards now know that the purely business mind is not equal to the task of administering in detail the affairs of a hospital, and are refraining more and more from dictating to hospital Directors, and the physicians and surgeons of the staff, recognizing as truth that the management of matters medical demands the mental make up of medical minds.

PHILIP WEBB DAVIS.

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PHYSICIANS' BABIES  
ARE  
BETTER BABIES

Nine out of ten mothers can give their babies the breast. What can the physician tell these mothers who want to wean their babies before they nurse them?

## Types of Mothers and Their Infant-Feeding Problems

### 1. The Business-Going Mother

"Doctor, I will have to give up nursing my baby. Our expenses have been very heavy lately and I must go back to business. My position is open for me provided I go back next week."

"Of course, you know, Mrs. Rush, that breast milk is best for your baby. In every way, it is far ahead of the best formula. It is free from bacteria and

dirt, it never sours, it is always correct in temperature, and quicker as well as cheaper than bottles. I haven't much respect for the mother who won't nurse her baby. Your case is perhaps more excusable, for at least you have nursed your baby up to the point where the economic shoe is pinching pretty tight."

Doctor, in situations like this, where extenuating circumstances make artificial feeding necessary, we hope you will consider Mead's Dextri-Maltose modification of cow's milk as the next-best-to-mother's-milk infant food. We hope you will be influenced in its choice, not only because of its long clinical background but because of the ethical character of its makers.







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